FCC PART 27

TEST AND MEASUREMENT REPORT

For

Whoop Wireless, Inc.

5913 NW 31st Ave., Fort Lauderdale,

Germantown, FL 33309, USA

FCC ID: 2AEQJ-CP4-001

Report Type:	Product Type:
Original Report	Industrial Booster

Prepared By:	Ronak Patel Test Engineer
Report Number:	R1506022-27 Rev B
Report Date:	2015-07-29
Reviewed By:	Simon Ma RF Lead

Bay Area Compliance Laboratories Corp.
1274 Anvilwood Avenue,
Sunnyvale, CA 94089, USA
Tel: (408) 732-9162
Fax: (408) 732 9164

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R1506022-27	Original Report	2015-07-09
1	R1506022-27 Rev A	Updated test data	2015-07-27
2	R1506022-27 Rev B	Updated test data	2015-07-29

1 General Information

1.1 Product Description for Equipment under Test (EUT)

This test and measurement report was prepared on behalf of *Whoop Wireless, Inc.* and their product model: CP4-001, FCC ID: 2AEQJ-CP4-001 which will henceforth be referred to as the EUT (Equipment under Test). The EUT is a cellular band amplifier for both downlink and uplink. The EUT operates in the frequency band of 2100MHz for LTE downlink, 1700MHz for LTE uplink, 700MHz for LTE downlink and uplink, CDMA and WCDMA for 2100 and 1700 for downlink and uplink respectively.

1.2 Mechanical Description

The EUT measures approximately 17cm (L) x 13cm (W) x 3cm (H) and weighs 1kg.

The test data gathered are from typical production sample, serial number: R1506022-1, assigned by BACL.

1.3 Objective

This type approval report is prepared on behalf of *Whoop Wireless, Inc.* in accordance with Part 2, Subpart J, Part 20.21, and Part 27 of the Federal Communication Commission's rules.

The objective is to determine compliance with FCC rules for RF output power, occupied bandwidth, spurious emissions at antenna terminal, field strength of spurious radiation and band edge.

1.4 Related Submittal(s)/Grant(s)

No Related Submittals

1.5 Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J as well as the following parts:

Part 20.21 – Signal Boosters
Part 27 - Miscellineous Wireless Communication Services

Applicable Standards: TIA/EIA603-D, ANSI C63.4-2014, FCC KDB 935210.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratory, Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

1.6 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR16-4-2:2011, The Treatment of Uncertainty in EMC Measurements, the values ranging from ±2.0 dB for Conducted Emissions tests and ±4.0 dB for Radiated Emissions tests are the most accurate estimates pertaining to uncertainty of EMC measurements at BACL Corp.

1.7 Test Facility

Bay area compliance Laboratories Corp. (BACL) is:
1- An independent Commercial Test Laboratory accredited to **ISO 17025: 2005** by **A2LA**, in the fields of: Electromagnetic Compatibility & Telecommunications covering Emissions, Immunity, Radio, RF Exposure, Safety and Telecom. This includes NEBS (Network Equipment Building System), Wireless RF, Telecommunications Terminal Equipment (TTE); Network Equipment; Information Technology Equipment (ITE); Medical Electrical Equipment; Industrial, Commercial, and Medical Test Equipment; Professional Audio and Video Equipment; Electronic (Digital) Products; Industrial and Scientific Instruments; Cabled Distribution Systems and Energy Efficiency Lighting.

2- An ENERGY STAR Recognized Laboratory, for the LM80 Testing, a wide variety of Luminares and Computers.

3- A NIST Designated Phase-I and Phase-II CAB including: ACMA (Australian Communication and Media Authority), BSMI (Bureau of Standards, Metrology and Inspection of Taiwan), IDA (Infocomm Development Authority of Singapore), IC(Industry Canada), Korea (Ministry of Communications Radio Research Laboratory), NCC (Formerly DGT; Directorate General of Telecommunication of Chinese Taipei) OFTA (Office of the Telecommunications Authority of Hong Kong), Vietnam, VCCI - Voluntary Control Council for Interference of Japan and a designated EU CAB (Conformity Assessment Body) (Notified Body) for the EMC and R&TTE Directives.

4- A Product Certification Body accredited to **ISO Guide 65:1996** by **A2LA** to certify:
1- Unlicensed, Licensed radio frequency devices and Telephone Terminal Equipment for the FCC. Scope A1, A2, A3, A4, B1, B2, B3, B4 & C.
2. Radio Standards Specifications (RSS) in the Category I Equipment Standards List and All Broadcasting Technical Standards (BETS) in Category I Equipment Standards List for Industry Canada.
3. Radio Communication Equipment for Singapore.
4. Radio Equipment Specifications, GMDSS Marine Radio Equipment Specifications, and Fixed Network Equipment Specifications for Hong Kong.
5. Japan MIC Telecommunication Business Law (A1, A2) and Radio Law (B1, B2 and B3).
6. Audio/Video, Battery Charging Systems, Computers, Displays, Enterprise Servers, Imaging Equipment, Set-Top Boxes, Telephony, Televisions, Ceiling Fans, CFLs (Including GU24s),Decorative Light Strings, Integral LED Lamps, Luminaires, Residential Ventilating Fans.

The test site used by BACL Corp. to collect radiated and conducted emissions measurement data is located at its facility in Sunnyvale, California, USA.

The test site at BACL Corp. has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11 and December 10, 1997, and Article 8 of the VCCI regulations on December 25, 1997. The test site also complies with the test methods and procedures set forth in CISPR 22:2008 §10.4 for measurements below 1 GHz and §10.6 for measurements above 1 GHz as well as ANSI C63.4-2009, ANSI C63.4-2009, TIA/EIA-603 & CISPR 24:2010.

The Federal Communications Commission and Voluntary Control Council for Interference have the reports on file and they are listed under FCC registration number: 90464 and VCCI Registration No.: A-0027. The test site has been approved by the FCC and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, BACL Corp. is an American Association for Laboratory Accreditation (A2LA) accredited laboratory (Lab Code 3297-02). The current scope of accreditations can be found at

http://www.a2la.org/scopepdf/3297-02.pdf?CFID=1132286&CFTOKEN=e42a3240dac3f6ba-6DE17DCB-1851-9E57-477422F667031258&jsessionid=8430d44f1f47cf2996124343c704b367816b

2 System Test Configuration

2.1 Justification

The EUT was configured for testing according to TIA/EIA-603-D.
The final qualification test was performed with the EUT operating at normal mode.

2.2 EUT Exercise Software

N/A: signal was sent through EUT using a signal generator. The device was set to normal operating mode.

2.3 Equipment Modifications

No modifications were made to the EUT.

2.4 EUT Internal Configuration

Manufacturer	Description	Model	Serial Number
Zore Access Tech	30-00010-PCB	CP4-002 REV A	-

2.5 Local Support Equipment List and Details

Manufacturers	Descriptions	Models	Serial Numbers
Dell	Laptop	Latitude D600	CN-0X2034-48643-3A6-8307
Agilent	Signal Generator	E4438C	MY45091309
Agilent	Signal Studio for WCDMA/LTE	N7600B	-

2.6 Power Supply and Line Filters

Manufacturers	Descriptions	Models	Serial Numbers
Switching Adapter	AC Adapter	GQ15-050250-CU	-

2.7 Interface Ports and Cabling

Cable Description	Length (m)	From	To
RF cable	<1	Signal Generator	Input/ EUT
RF cable	<1	Output/ EUT	Spectrum Analyzer

3 Summary of Test Results

FCC Rules	Description of Tests	Results
§2.1046, §27.50(b)(c)(d)	RF Output Power	Compliant
§2.1049	Occupied Bandwidth	Compliant
§2.1053, §27.53	Spurious Radiated Emissions	Compliant
§2.1053, §27.53	Spurious Emissions at Antenna Terminals	Compliant
§2.1053, §27.53	Band Edge	Compliant
§2.1055, §27.54	Frequency Stability	N/A[1]
§20.21	Out of Band Rejection	Compliant
§2.1091	RF Exposure	Compliant

N/A[1] The unit is a signal booster.

4 FCC §2.1046 & §27.50(b) (c) (d) - RF Output Power

4.1 Applicable Standards

According to FCC §27.50 (b) (9), control stations and mobile stations transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands and fixed stations transmitting in the 787-788 MHz and 805-806 MHz bands are limited to 30 Watts ERP.

According to FCC §27.50 (c) (9), control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP.

According to FCC §27.50 (d) (2), the power of each fixed or base station transmitting in the 1995-2000 MHz, the 2110-2155 MHz 2155-2180 MHz band, or 2180-2200 MHz band and situated in any geographic location other than that described in paragraph (d)(1) of this section is limited to an EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

According to FCC §27.50 (d) (4), fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

4.2 Test Procedure

Conducted:

The EUT was connected to the spectrum analyzer and Signal Generator followed by 50Ω-75Ω matching pad.

4.3 Test Equipment List and Details

Manufacturers	Descriptions	Models	Serial Numbers	Calibration Dates	Calibration Interval
Agilent	Spectrum Analyzer	E4440A	MY44303352	2015-06-22	1 year
Agilent	Signal Generator	E4438C	MY45091309	2014-07-15	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed per the A2LA requirements, traceable to the NIST.*

4.4 Test Environmental Conditions

Temperature:	21-23° C
Relative Humidity:	42-48 %
ATM Pressure:	101.4-102 kPa

The testing was performed by Ronak Patel 2015-06-08 to 2015-06-29 in the RF Site.

4.5 Test Results

ALC OFF

Mode		Channel	Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
WCDMA	Band 4 Downlink	Low	2112.4	-39	15.24	54.24
		Middle	2132.5	-42	15.28	57.28
		High	2152.6	-42	15.57	57.57
	Band 4 Uplink	Low	1712.4	-49	15.42	64.42
		Middle	1732.5	-51	15.73	66.73
		High	1752.6	-52	15.2	67.2
CDMA	Band 4 Downlink	Low	2110.8	-43.93	15.47	59.4
		Middle	2132.5	-44.93	15.38	60.31
		High	2154.2	-45.93	15.17	61.1
	Band 4 Uplink	Low	1710.8	-46	16	62
		Middle	1732.5	-48	15.05	63.05
		High	1754.2	-49	15.98	64.98

LTE Band 4, DL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	1.4	2110.7	-46.93	15.61	62.54
		2132.5	-50.93	15.42	66.35
		2154.3	-50.93	15.35	66.28
	3	2111.5	-43.93	15.28	59.21
		2132.5	-46.93	15.59	62.52
		2153.5	-47.93	15.11	63.04
	5	2112.5	-46.93	15.58	62.51
		2132.5	-50.93	15.15	66.08
		2152.5	-47.93	15.17	63.1
	10	2115	-44.93	15.43	60.36
		2132.5	-50.93	15.03	65.96
		2150	-44.93	15.87	60.8
	15	2117.5	-47.93	15.23	63.16
		2132.5	-48.93	15.42	64.35
		2147.5	-45.93	15.59	61.52
	20	2120	-47.93	15.66	63.59
		2132.5	-47.93	15.32	63.25
		2145	-44.93	15.1	60.03
16-QAM	1.4	2110.7	-46.93	15.20	62.13
		2132.5	-48.93	15.45	64.38
		2154.3	-47.93	15.47	63.4
	3	2111.5	-43.93	15.77	59.7
		2132.5	-45.93	15.49	61.42
		2153.5	-44.93	15.40	60.33
	5	2112.5	-40.93	14.79	55.72
		2132.5	-42.93	14.29	57.22
		2152.5	-40.93	13.88	54.81
	10	2115	-46.93	15.36	62.29
		2132.5	-49.93	15.7	65.63
		2150	-46.93	15.52	62.45
	15	2117.5	-46.93	15.64	62.57
		2132.5	-49.93	15.13	65.06
		2147.5	-45.93	15.08	61.01
	20	2120	-48.93	15.14	64.07
		2132.5	-48.93	15.74	64.67
		2145	-44.93	15.49	60.42

LTE Band 4, DL (Continued)

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
64-QAM	1.4	2110.7	-39.93	15.45	55.38
		2132.5	-42.93	15.06	57.99
		2154.3	-41.93	15.46	57.39
	3	2111.5	-51.93	15.35	67.28
		2132.5	-54.93	15.19	70.12
		2153.5	-52.93	15.17	68.1
	5	2112.5	-48.93	15.26	64.19
		2132.5	-50.93	15.84	66.77
		2152.5	-49.93	15.21	65.14
	10	2115	-45.93	15.27	61.2
		2132.5	-48.93	15.55	64.48
		2150	-45.93	15.80	61.73
	15	2117.5	-45.93	15.31	61.24
		2132.5	-46.93	15.78	62.71
		2147.5	-44.93	15.25	60.18
	20	2120	-45.93	15.04	60.97
		2132.5	-46.93	15.05	61.98
		2145	-43.93	15.07	59

LTE Band 4, UL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	1.4	1710.7	-49	15.28	64.28
		1732.5	-51	15.16	66.16
		1754.3	-52	15.14	67.14
	3	1711.5	-47	12.52	59.52
		1732.5	-48	15.15	63.15
		1753.5	-47	15.85	62.85
	5	1712.5	-45	12.10	57.1
		1732.5	-47	15.06	62.06
		1752.5	-47	13.97	60.97
	10	1715	-45	9.65	54.65
		1732.5	-45	14.53	59.53
		1750	-45	13.43	58.43
	15	1717.5	-45	11.95	56.95
		1732.5	-45	14.13	59.13
		1747.5	-44	13.23	57.23
	20	1720	-46	11.60	57.6
		1732.5	-45	13.24	58.24
		1745	-43	11.96	54.96
16-QAM	1.4	1710.7	-50	15.62	65.62
		1732.5	-52	15.06	67.06
		1754.3	-51	15.73	66.73
	3	1711.5	-46	13.91	59.91
		1732.5	-49	15.41	64.41
		1753.5	-48	15.44	63.44
	5	1712.5	-44	13.17	57.17
		1732.5	-48	15.26	63.26
		1752.5	-47	15.21	62.21
	10	1715	-46	10.93	56.93
		1732.5	-46	15.18	61.18
		1750	-44	14.21	58.21
	15	1717.5	-46	12.28	58.28
		1732.5	-46	15.24	61.24
		1747.5	-45	13.49	58.49
	20	1720	-47	12.53	59.53
		1732.5	-45	13.88	58.88
		1745	-45	13.12	58.12

LTE Band 4, UL (Continued)

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
64-QAM	1.4	1710.7	-51	15.30	66.3
		1732.5	-53	15.30	68.3
		1754.3	-53	15.82	68.82
	3	1711.5	-47	14.68	61.68
		1732.5	-51	15.26	66.26
		1753.5	-50	15.09	65.09
	5	1712.5	-46	13.33	59.33
		1732.5	-49	15.21	64.21
		1752.5	-49	15.10	64.1
	10	1715	-46	11.74	57.74
		1732.5	-47	15.72	62.72
		1750	-46	14.26	60.26
	15	1717.5	-46	12.26	58.26
		1732.5	-46	15.09	61.09
		1747.5	-46	13.44	59.44
	20	1720	-46	12.35	58.35
		1732.5	-45	14.90	59.9
		1745	-45	13.12	58.12

LTE Band 13, DL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	5	748.5	-49	15.59	64.59
		751	-47	15.58	62.58
		753.5	-44	15.22	59.22
	10	-	-	-	-
		751	-47	15.52	62.52
		-	-	-	-
16-QAM	5	748.5	-49	15.62	64.62
		751	-48	15.65	63.65
		753.5	-45	15.11	60.11
	10	-	-	-	-
		751	-46	15.65	51.65
		-	-	-	-
64-QAM	5	748.5	-49	15.73	64.73
		751	-48	15.26	63.26
		753.5	-44	15.29	59.29
	10	-	-	-	-
		751	-47	15.36	62.36
		-	-	-	-

LTE Band 13, UL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power(dBm)	Gain (dB)
QPSK	5	779.5	-45	15.44	60.44
		782	-45	15.95	60.95
		784.5	-44	15.81	59.81
	10	-	-	-	-
		782	-44	15.39	59.39
		-	-	-	-
16-QAM	5	779.5	-46	15.90	61.9
		782	-46	14.93	60.93
		784.5	-46	15.12	61.12
	10	-	-	-	-
		782	-45	15.01	60.01
		-	-	-	-
64-QAM	5	779.5	-48	15.20	63.2
		782	-47	15.29	62.29
		784.5	-47	15.08	62.08
	10	-	-	-	-
		782	-45	15.82	60.82
		-	-	-	-

LTE Band 17, DL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	5	736.5	-47	15.38	62.38
		740	-48	15.10	63.10
		743.5	-48	15.31	63.31
	10	-	-	-	-
		740	-45	15.76	60.76
		-	-	-	-
16-QAM	5	736.5	-47	15.39	62.39
		740	-48	15.64	63.64
		743.5	-49	15.18	64.18
	10	-	-	-	-
		740	-45	15.26	60.26
		-	-	-	-
64-QAM	5	736.5	-47	15.10	62.10
		740	-47	15.61	62.61
		743.5	-49	15.63	64.63
	10	-	-	-	-
		740	-45	15.33	60.33
		-	-	-	-

LTE BAND 17 UL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	5	706.5	-46	15.38	61.38
		710	-46	15.26	61.26
		713.5	-44	15.62	59.62
	10	-	-	-	-
		710	-45	15.46	60.46
		-	-	-	-
16-QAM	5	706.5	-47	15.98	62.98
		710	-47	15.37	62.37
		713.5	-45	15.20	60.2
	10	-	-	-	-
		710	-44	15.87	59.87
		-	-	-	-
64-QAM	5	706.5	-47	15.38	62.38
		710	-46	15.76	61.76
		713.5	-44	15.31	59.31
	10	-	-	-	-
		710	-45	15.56	60.56
		-	-	-	-

ALC ON

Mode		Channel	Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
WCDMA	Band 4 Downlink	Low	2112.4	-36	15.17	51.17
		Middle	2132.5	-39	16.09	55.09
		High	2152.6	-39	14.88	53.88
	Band 4 Uplink	Low	1712.4	-46	15.98	61.98
		Middle	1732.5	-48	15.88	63.88
		High	1752.6	-49	15.85	64.85
CDMA	Band 4 Downlink	Low	2110.8	-40.93	15.49	56.42
		Middle	2132.5	-41.93	15.16	57.09
		High	2154.2	-42.93	16.00	58.93
	Band 4 Uplink	Low	1710.8	-43	16.49	59.49
		Middle	1732.5	-45	14.94	59.94
		High	1754.2	-46	15.78	61.78

LTE Band 4, DL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	1.4	2110.7	-43.93	16.12	60.05
		2132.5	-47.93	15.85	63.78
		2154.3	-47.93	15.55	63.48
	3	2111.5	-40.93	15.39	56.32
		2132.5	-43.93	16.22	60.15
		2153.5	-44.93	15.39	60.32
	5	2112.5	-43.93	15.6	59.53
		2132.5	-47.93	15.51	63.44
		2152.5	-44.93	15.35	60.28
	10	2115	-41.93	16.06	57.99
		2132.5	-47.93	15.36	63.29
		2150	-41.93	16.51	58.44
	15	2117.5	-44.93	15.96	60.89
		2132.5	-45.93	15.96	61.89
		2147.5	-42.93	15.9	58.83
	20	2120	-44.93	15.65	60.58
		2132.5	-44.93	14.91	59.84
		2145	-41.93	15.7	57.63
16-QAM	1.4	2110.7	-43.93	15.73	59.66
		2132.5	-45.93	15.65	61.58
		2154.3	-44.93	15.50	60.43
	3	2111.5	-40.93	15.86	56.79
		2132.5	-42.93	15.78	58.71
		2153.5	-41.93	15.98	57.91
	5	2112.5	-37.93	15	52.93
		2132.5	-39.93	14.79	54.72
		2152.5	-37.93	14.07	52
	10	2115	-43.93	15.46	59.39
		2132.5	-46.93	17.03	63.96
		2150	-43.93	15.8	59.73
	15	2117.5	-43.93	16.28	60.21
		2132.5	-46.93	15.86	62.79
		2147.5	-42.93	15.62	58.55
	20	2120	-45.93	15.45	61.38
		2132.5	-45.93	15.73	61.66
		2145	-41.93	15.08	57.01

LTE Band 4, DL (Continued)

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
64-QAM	1.4	2110.7	-36.93	15.53	52.46
		2132.5	-39.93	15.93	55.86
		2154.3	-38.93	15.83	54.76
	3	2111.5	-48.93	16.1	65.03
		2132.5	-51.93	15.44	67.37
		2153.5	-49.93	15.34	65.27
	5	2112.5	-45.93	15.66	61.59
		2132.5	-47.93	16.05	63.98
		2152.5	-46.93	15.67	62.6
	10	2115	-42.93	15.77	58.7
		2132.5	-45.93	15.98	61.91
		2150	-42.93	16	58.93
	15	2117.5	-42.93	16.15	59.08
		2132.5	-43.93	16.53	60.46
		2147.5	-41.93	15.38	57.31
	20	2120	-42.93	15.4	58.33
		2132.5	-43.93	15.96	59.89
		2145	-40.93	15.66	56.59

LTE Band 4, UL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	1.4	1710.7	-46	15.45	61.45
		1732.5	-48	15.45	63.45
		1754.3	-49	16.33	65.33
	3	1711.5	-44	12.37	56.37
		1732.5	-45	15.23	60.23
		1753.5	-44	15.98	59.98
	5	1712.5	-42	14.01	56.01
		1732.5	-44	15.75	59.75
		1752.5	-44	15.94	59.94
	10	1715	-42	9.38	51.38
		1732.5	-42	14.45	56.45
		1750	-42	13.88	55.88
	15	1717.5	-42	12.54	54.54
		1732.5	-42	14.1	56.1
		1747.5	-41	13.84	54.84
	20	1720	-43	11.18	54.18
		1732.5	-42	13.15	55.15
		1745	-40	12.24	52.24
16-QAM	1.4	1710.7	-47	15.54	62.54
		1732.5	-49	15.51	64.51
		1754.3	-48	16.32	64.32
	3	1711.5	-43	13.88	56.88
		1732.5	-46	16.02	62.02
		1753.5	-45	15.02	60.02
	5	1712.5	-41	13.08	54.08
		1732.5	-45	15.54	60.54
		1752.5	-44	15.06	59.06
	10	1715	-43	11.01	54.01
		1732.5	-43	15.31	58.31
		1750	-41	16.12	57.12
	15	1717.5	-43	12.97	55.97
		1732.5	-43	17.21	60.21
		1747.5	-42	13.22	55.22
	20	1720	-44	12.45	56.45
		1732.5	-42	14.33	56.33
		1745	-42	13.71	55.71

LTE Band 4, UL (Continued)

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
64-QAM	1.4	1710.7	-48	15.76	63.76
		1732.5	-50	15.81	65.81
		1754.3	-50	16	66
	3	1711.5	-44	15.51	59.51
		1732.5	-48	15.97	63.97
		1753.5	-47	15.55	62.55
	5	1712.5	-43	14.9	57.9
		1732.5	-46	15.05	61.05
		1752.5	-46	15.67	61.67
	10	1715	-43	13.01	56.01
		1732.5	-44	15.98	59.98
		1750	-43	14.99	57.99
	15	1717.5	-43	13.06	56.06
		1732.5	-43	15.74	58.74
		1747.5	-43	14.04	57.04
	20	1720	-43	13.64	56.64
		1732.5	-42	15.88	57.88
		1745	-42	15.31	57.31

LTE Band 13, DL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	5	748.5	-46	16.2	62.2
		751	-44	16.33	60.33
		753.5	-41	15.52	56.52
	10	-	-	-	-
		751	-44	16.22	60.22
		-	-	-	-
16-QAM	5	748.5	-46	15.98	61.98
		751	-45	15.59	60.59
		753.5	-42	15.43	57.43
	10	-	-	-	-
		751	-43	16.56	59.56
		-	-	-	-
64-QAM	5	748.5	-46	15.39	61.39
		751	-45	15.77	60.77
		753.5	-41	15.83	56.83
	10	-	-	-	-
		751	-44	16.63	60.63
		-	-	-	-

LTE Band 13, UL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power(dBm)	Gain (dB)
QPSK	5	779.5	-42	17.96	59.96
		782	-42	17.54	59.54
		784.5	-41	17.43	58.43
	10	-	-	-	-
		782	-41	15.44	56.44
		-	-	-	-
16-QAM	5	779.5	-43	16.3	59.3
		782	-43	15.4	58.4
		784.5	-43	15.77	58.77
	10	-	-	-	-
		782	-42	14.79	56.79
		-	-	-	-
64-QAM	5	779.5	-45	15.43	60.43
		782	-44	14.52	58.52
		784.5	-44	14.13	58.13
	10	-	-	-	-
		782	-42	15.2	57.2
		-	-	-	-

LTE Band 17, DL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	5	736.5	-44	15.46	59.46
		740	-45	14.94	59.94
		743.5	-45	15.69	60.69
	10	-	-	-	-
		740	-42	16.12	58.12
		-	-	-	-
16-QAM	5	736.5	-44	15.82	59.82
		740	-45	16.66	61.66
		743.5	-46	15.85	61.85
	10	-	-	-	-
		740	-42	15.35	57.35
		-	-	-	-
64-QAM	5	736.5	-44	15.78	59.78
		740	-44	16.05	60.05
		743.5	-46	16.62	62.62
	10	-	-	-	-
		740	-42	15.79	57.79
		-	-	-	-

LTE Band 17, UL

Modulation Type	Channel Bandwidth (MHz)	Channel Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
QPSK	5	706.5	-43	15.99	58.99
		710	-43	15.62	58.62
		713.5	-41	15.78	56.78
	10	-	-	-	-
		710	-42	15.94	57.94
		-	-	-	-
16-QAM	5	706.5	-44	17.02	61.02
		710	-44	16.03	60.03
		713.5	-42	15.72	57.72
	10	-	-	-	-
		710	-41	16.61	57.61
		-	-	-	-
64-QAM	5	706.5	-44	15.83	59.83
		710	-43	16.07	59.07
		713.5	-41	15.93	56.93
	10	-	-	-	-
		710	-42	16.46	58.46
		-	-	-	-

5 FCC §2.1049 - Occupied Bandwidth

5.1 Applicable Standards

Requirements: FCC §2.1049

5.2 Test Procedure

The EUT was connected to the spectrum analyzer and Signal Generator followed by 50Ω-75Ω matching pad.

The resolution bandwidth of the spectrum analyzer was set to at least 1 to 5% of the anticipated OBW and the 26 dB & 99% bandwidth was recorded.

5.3 Test Equipment List and Details

Manufacturers	Descriptions	Models	Serial Numbers	Calibration Dates	Calibration Interval
Agilent	Spectrum Analyzer	E4440A	MY44303352	2014-10-16	1 year
Agilent	Signal Generator	E4438C	MY45091309	2014-07-15	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed per the A2LA requirements, traceable to the NIST.*

5.4 Test Environmental Conditions

Temperature:	21-23° C
Relative Humidity:	42-48 %
ATM Pressure:	101.4-102 kPa

The testing was performed by Ronak Patel on 2015-06-08 to 2015-06-29 in the RF Site.

5.5 Test Results

Please refer to the following tables and plots.

ALC OFF

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
CDMA/EVDO	Band 4 Downlink	Low	2110.8	1.469	1.478
		Middle	2132.5	1.468	1.476
		High	2154.2	1.453	1.479
	Band 4 Uplink	Low	1710.8	1.472	1.460
		Middle	1732.5	1.457	1.472
		High	1754.2	1.457	1.468
WCDMA	Band 4 Downlink	Low	2112.4	4.869	4.766
		Middle	2132.5	4.890	4.749
		High	2152.6	4.829	4.807
	Band 4 Uplink	Low	1712.4	4.852	4.879
		Middle	1732.5	4.912	4.813
		High	1752.6	4.912	4.847

LTE Band 4, QPSK

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
LTE 1.4 MHz	Band 4 Downlink	Low	2110.7	1.363	1.206
		Middle	2132.5	1.378	1.237
		High	2154.3	1.388	1.292
	Band 4 Uplink	Low	1710.7	1.415	1.355
		Middle	1732.5	1.409	1.356
		High	1754.3	1.468	1.342
LTE 3 MHz	Band 4 Downlink	Low	2111.5	3.109	3.001
		Middle	2132.5	3.080	3.128
		High	2153.5	3.090	3.046
	Band 4 Uplink	Low	1711.5	3.184	3.126
		Middle	1732.5	3.184	3.118
		High	1753.5	3.184	3.115
LTE 5 MHz	Band 4 Downlink	Low	2112.5	5.109	5.043
		Middle	2132.5	5.183	5.047
		High	2152.5	5.160	5.139
	Band 4 Uplink	Low	1712.5	5.257	5.111
		Middle	1732.5	5.239	5.175
		High	1752.5	5.245	5.149
LTE 10 MHz	Band 4 Downlink	Low	2115	10.543	10.155
		Middle	2132.5	10.386	10.110
		High	2150	10.323	9.970
	Band 4 Uplink	Low	1715	10.591	10.193
		Middle	1732.5	10.503	10.136
		High	1750	10.499	10.326
LTE 15 MHz	Band 4 Downlink	Low	2117.5	15.811	15.862
		Middle	2132.5	15.839	15.724
		High	2147.5	15.842	15.857
	Band 4 Uplink	Low	1717.5	15.839	15.417
		Middle	1732.5	15.782	15.274
		High	1747.5	15.751	15.828
LTE 20 MHz	Band 4 Downlink	Low	2120	20.911	20.396
		Middle	2132.5	20.922	20.565
		High	2145	20.866	20.941
	Band 4 Uplink	Low	1720	20.909	20.624
		Middle	1732.5	21.026	20.000
		High	1745	21.049	20.736

LTE Band 4, 16QAM

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
LTE 1.4 MHz	Band 4 Downlink	Low	2110.7	1.381	1.357
		Middle	2132.5	1.374	1.345
		High	2154.3	1.375	1.333
	Band 4 Uplink	Low	1710.7	1.404	1.340
		Middle	1732.5	1.393	1.382
		High	1754.3	1.401	1.346
LTE 3 MHz	Band 4 Downlink	Low	2111.5	3.171	3.082
		Middle	2132.5	3.165	3.095
		High	2153.5	3.165	3.091
	Band 4 Uplink	Low	1711.5	3.171	3.108
		Middle	1732.5	3.165	3.068
		High	1753.5	3.165	3.107
LTE 5 MHz	Band 4 Downlink	Low	2112.5	5.137	5.095
		Middle	2132.5	5.322	5.136
		High	2152.5	5.258	5.079
	Band 4 Uplink	Low	1712.5	5.225	5.177
		Middle	1732.5	5.233	5.128
		High	1752.5	5.239	5.097
LTE 10 MHz	Band 4 Downlink	Low	2115	10.371	10.299
		Middle	2132.5	10.611	10.316
		High	2150	10.635	10.291
	Band 4 Uplink	Low	1715	10.530	10.350
		Middle	1732.5	10.560	10.220
		High	1750	10.535	10.066
LTE 15 MHz	Band 4 Downlink	Low	2117.5	15.749	15.545
		Middle	2132.5	15.709	15.099
		High	2147.5	15.755	15.440
	Band 4 Uplink	Low	1717.5	15.804	15.649
		Middle	1732.5	15.761	15.237
		High	1747.5	15.755	15.378
LTE 20 MHz	Band 4 Downlink	Low	2120	20.996	20.412
		Middle	2132.5	20.930	20.121
		High	2145	20.854	20.638
	Band 4 Uplink	Low	1720	21.139	20.283
		Middle	1732.5	21.076	20.045
		High	1745	20.972	20.676

LTE Band 4, 64QAM

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
LTE 1.4 MHz	Band 4 Downlink	Low	2110.7	1.377	1.354
		Middle	2132.5	1.393	1.358
		High	2154.3	1.350	1.356
	Band 4 Uplink	Low	1710.7	1.381	1.339
		Middle	1732.5	1.391	1.352
		High	1754.3	1.389	1.356
LTE 3 MHz	Band 4 Downlink	Low	2111.5	3.105	3.118
		Middle	2132.5	3.097	3.077
		High	2153.5	3.083	3.093
	Band 4 Uplink	Low	1711.5	3.164	3.103
		Middle	1732.5	3.158	3.155
		High	1753.5	3.159	3.085
LTE 5 MHz	Band 4 Downlink	Low	2112.5	5.132	5.171
		Middle	2132.5	5.206	5.118
		High	2152.5	5.136	5.115
	Band 4 Uplink	Low	1712.5	5.272	5.104
		Middle	1732.5	5.264	5.219
		High	1752.5	5.254	5.174
LTE 10 MHz	Band 4 Downlink	Low	2115	10.543	10.292
		Middle	2132.5	10.292	10.234
		High	2150	10.363	10.143
	Band 4 Uplink	Low	1715	10.526	10.410
		Middle	1732.5	10.450	10.186
		High	1750	10.494	10.201
LTE 15 MHz	Band 4 Downlink	Low	2117.5	15.701	15.463
		Middle	2132.5	15.808	15.141
		High	2147.5	15.726	15.528
	Band 4 Uplink	Low	1717.5	15.729	15.273
		Middle	1732.5	15.767	15.229
		High	1747.5	15.687	15.221
LTE 20 MHz	Band 4 Downlink	Low	2120	21.014	20.008
		Middle	2132.5	21.044	20.035
		High	2145	20.978	20.537
	Band 4 Uplink	Low	1720	20.886	20.593
		Middle	1732.5	21.009	20.129
		High	1745	20.961	20.460

LTE Band 13, DL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	748.5	5.248	5.175
		751	5.248	5.152
		753.5	5.265	5.146
	10	-		
		751	10.517	9.970
		-		
16-QAM	5	748.5	5.239	5.112
		751	5.240	5.156
		753.5	5.237	5.158
	10	-		
		751	10.458	10.155
		-		
64-QAM	5	748.5	5.235	5.103
		751	5.235	5.087
		753.5	5.253	5.136
	10	-		
		751	10.470	10.199
		-		

LTE Band 13, UL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	779.5	5.264	5.190
		782	5.237	5.134
		784.5	5.247	5.123
	10	-		
		782	10.950	10.311
		-		
16-QAM	5	779.5	5.255	5.128
		782	5.223	5.213
		784.5	5.253	5.106
	10	-		
		782	11.059	10.269
		-		
64-QAM	5	779.5	5.262	5.124
		782	5.236	5.191
		784.5	5.269	5.113
	10	-		
		782	10.925	10.335
		-		

LTE Band 17, DL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	736.5	5.266	5.276
		740	5.235	5.266
		743.5	5.248	5.261
	10	-		
		740	10.545	10.588
		-		
16-QAM	5	736.5	5.253	5.239
		740	5.235	5.249
		743.5	5.254	5.258
	10	-		
		740	10.465	10.546
		-		
64-QAM	5	736.5	5.233	5.225
		740	5.234	5.258
		743.5	5.232	5.236
	10	-		
		740	10.493	10.523
		-		

LTE Band 17, UL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	706.5	5.247	5.145
		710	5.259	5.125
		713.5	5.237	5.096
	10	-		
		710	10.474	10.158
		-		
16-QAM	5	706.5	5.244	5.125
		710	5.240	5.148
		713.5	5.233	5.201
	10	-		
		710	10.583	10.210
		-		
64-QAM	5	706.5	5.244	5.158
		710	5.256	5.161
		713.5	5.279	5.228
	10	-		
		710	10.503	10.192
		-		

ALC ON

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
CDMA/EVDO	Band 4 Downlink	Low	2110.8	1.469	1.437
		Middle	2132.5	1.468	1.436
		High	2154.2	1.453	1.440
	Band 4 Uplink	Low	1710.8	1.472	1.433
		Middle	1732.5	1.457	1.440
		High	1754.2	1.457	1.433
WCDMA	Band 4 Downlink	Low	2112.4	4.869	4.667
		Middle	2132.5	4.890	4.694
		High	2152.6	4.829	4.676
	Band 4 Uplink	Low	1712.4	4.852	4.690
		Middle	1732.5	4.912	4.668
		High	1752.6	4.912	4.662

LTE Band 4, QPSK

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
LTE 1.4 MHz	Band 4 Downlink	Low	2110.7	1.363	1.282
		Middle	2132.5	1.378	1.286
		High	2154.3	1.388	1.282
	Band 4 Uplink	Low	1710.7	1.415	1.313
		Middle	1732.5	1.409	1.291
		High	1754.3	1.468	1.312
LTE 3 MHz	Band 4 Downlink	Low	2111.5	3.109	2.984
		Middle	2132.5	3.080	3.005
		High	2153.5	3.090	2.981
	Band 4 Uplink	Low	1711.5	3.184	2.972
		Middle	1732.5	3.184	2.995
		High	1753.5	3.184	2.985
LTE 5 MHz	Band 4 Downlink	Low	2112.5	5.109	4.901
		Middle	2132.5	5.183	4.901
		High	2152.5	5.160	4.885
	Band 4 Uplink	Low	1712.5	5.257	4.919
		Middle	1732.5	5.239	4.899
		High	1752.5	5.245	4.877
LTE 10 MHz	Band 4 Downlink	Low	2115	10.543	9.783
		Middle	2132.5	10.386	9.725
		High	2150	10.323	9.839
	Band 4 Uplink	Low	1715	10.591	9.851
		Middle	1732.5	10.503	9.784
		High	1750	10.499	9.729
LTE 15 MHz	Band 4 Downlink	Low	2117.5	15.811	14.601
		Middle	2132.5	15.839	14.333
		High	2147.5	15.842	14.804
	Band 4 Uplink	Low	1717.5	15.839	14.777
		Middle	1732.5	15.782	14.727
		High	1747.5	15.751	14.595
LTE 20 MHz	Band 4 Downlink	Low	2120	20.911	19.077
		Middle	2132.5	20.922	19.202
		High	2145	20.866	19.749
	Band 4 Uplink	Low	1720	20.909	19.310
		Middle	1732.5	21.026	18.842
		High	1745	21.049	19.651

LTE Band 4, 16QAM

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
LTE 1.4 MHz	Band 4 Downlink	Low	2110.7	1.381	1.288
		Middle	2132.5	1.374	1.269
		High	2154.3	1.375	1.284
	Band 4 Uplink	Low	1710.7	1.404	1.306
		Middle	1732.5	1.393	1.312
		High	1754.3	1.401	1.306
LTE 3 MHz	Band 4 Downlink	Low	2111.5	3.171	2.953
		Middle	2132.5	3.165	2.981
		High	2153.5	3.165	2.970
	Band 4 Uplink	Low	1711.5	3.171	2.988
		Middle	1732.5	3.165	2.970
		High	1753.5	3.165	2.987
LTE 5 MHz	Band 4 Downlink	Low	2112.5	5.137	4.968
		Middle	2132.5	5.322	4.936
		High	2152.5	5.258	4.968
	Band 4 Uplink	Low	1712.5	5.225	4.936
		Middle	1732.5	5.233	4.893
		High	1752.5	5.239	4.910
LTE 10 MHz	Band 4 Downlink	Low	2115	10.371	9.741
		Middle	2132.5	10.611	9.720
		High	2150	10.635	9.795
	Band 4 Uplink	Low	1715	10.530	9.774
		Middle	1732.5	10.560	9.672
		High	1750	10.535	9.784
LTE 15 MHz	Band 4 Downlink	Low	2117.5	15.749	14.697
		Middle	2132.5	15.709	14.527
		High	2147.5	15.755	14.872
	Band 4 Uplink	Low	1717.5	15.804	14.846
		Middle	1732.5	15.761	14.470
		High	1747.5	15.755	14.542
LTE 20 MHz	Band 4 Downlink	Low	2120	20.996	18.857
		Middle	2132.5	20.930	19.430
		High	2145	20.854	19.663
	Band 4 Uplink	Low	1720	21.139	19.487
		Middle	1732.5	21.076	19.380
		High	1745	20.972	19.569

LTE Band 4, 64QAM

Mode		Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Input	Output
LTE 1.4 MHz	Band 4 Downlink	Low	2110.7	1.377	1.290
		Middle	2132.5	1.393	1.309
		High	2154.3	1.350	1.263
	Band 4 Uplink	Low	1710.7	1.381	1.282
		Middle	1732.5	1.391	1.291
		High	1754.3	1.389	1.299
LTE 3 MHz	Band 4 Downlink	Low	2111.5	3.105	2.986
		Middle	2132.5	3.097	2.972
		High	2153.5	3.083	2.974
	Band 4 Uplink	Low	1711.5	3.164	2.982
		Middle	1732.5	3.158	2.985
		High	1753.5	3.159	2.972
LTE 5 MHz	Band 4 Downlink	Low	2112.5	5.132	4.943
		Middle	2132.5	5.206	4.972
		High	2152.5	5.136	4.918
	Band 4 Uplink	Low	1712.5	5.272	4.974
		Middle	1732.5	5.264	4.952
		High	1752.5	5.254	4.943
LTE 10 MHz	Band 4 Downlink	Low	2115	10.543	9.771
		Middle	2132.5	10.292	9.757
		High	2150	10.363	9.774
	Band 4 Uplink	Low	1715	10.526	9.807
		Middle	1732.5	10.450	9.699
		High	1750	10.494	9.727
LTE 15 MHz	Band 4 Downlink	Low	2117.5	15.701	14.657
		Middle	2132.5	15.808	14.677
		High	2147.5	15.726	14.662
	Band 4 Uplink	Low	1717.5	15.729	14.607
		Middle	1732.5	15.767	14.315
		High	1747.5	15.687	14.579
LTE 20 MHz	Band 4 Downlink	Low	2120	21.014	19.156
		Middle	2132.5	21.044	19.252
		High	2145	20.978	19.730
	Band 4 Uplink	Low	1720	20.886	19.734
		Middle	1732.5	21.009	19.139
		High	1745	20.961	19.708

LTE Band 13, DL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	748.5	5.248	4.879
		751	5.248	4.879
		753.5	5.265	4.936
	10	-	-	-
		751	10.517	9.626
		-	-	-
16-QAM	5	748.5	5.239	4.941
		751	5.240	4.904
		753.5	5.237	4.940
	10	-	-	-
		751	10.458	9.666
		-	-	-
64-QAM	5	748.5	5.235	4.905
		751	5.235	4.905
		753.5	5.253	4.945
	10	-	-	-
		751	10.470	9.619
		-	-	-

LTE Band 13, UL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	779.5	5.264	4.942
		782	5.237	4.924
		784.5	5.247	4.877
	10	-	-	-
		782	10.950	9.789
		-	-	-
16-QAM	5	779.5	5.255	4.923
		782	5.223	4.960
		784.5	5.253	4.910
	10	-	-	-
		782	11.059	9.867
		-	-	-
64-QAM	5	779.5	5.262	4.949
		782	5.236	4.962
		784.5	5.269	4.982
	10	-	-	-
		782	10.925	9.861
		-	-	-

LTE Band 17, DL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	736.5	5.266	4.902
		740	5.235	4.911
		743.5	5.248	4.936
	10	-	-	-
		740	10.545	9.841
		-	-	-
16-QAM	5	736.5	5.253	4.935
		740	5.235	4.934
		743.5	5.254	4.925
	10	-	-	-
		740	10.465	9.812
		-	-	-
64-QAM	5	736.5	5.233	4.913
		740	5.234	4.948
		743.5	5.232	4.957
	10	-	-	-
		740	10.493	9.773
		-	-	-

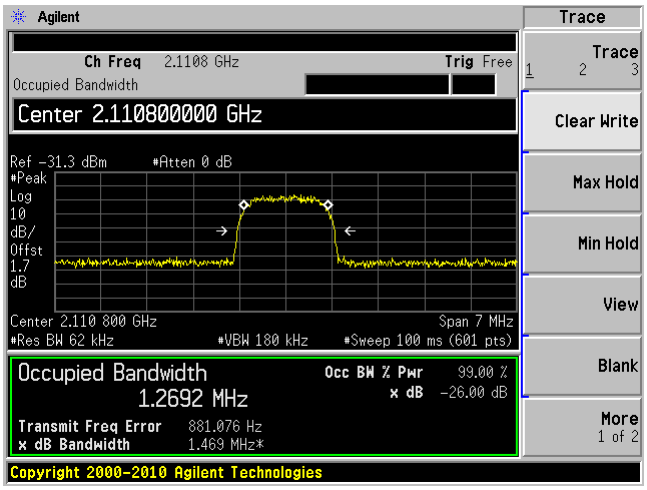
LTE Band 17, UL

Modulation Type	Channel Bandwidth (MHz)	Frequency (MHz)	26 dB Bandwidth (MHz)	
			Input	Input
QPSK	5	706.5	5.247	4.882
		710	5.259	4.901
		713.5	5.237	4.953
	10	-	-	-
		710	10.474	9.821
		-	-	-
16-QAM	5	706.5	5.244	4.886
		710	5.240	4.916
		713.5	5.233	4.932
	10	-	-	-
		710	10.583	9.795
		-	-	-
64-QAM	5	706.5	5.244	4.921
		710	5.256	4.992
		713.5	5.279	4.936
	10	-	-	-
		710	10.503	9.718
		-	-	-

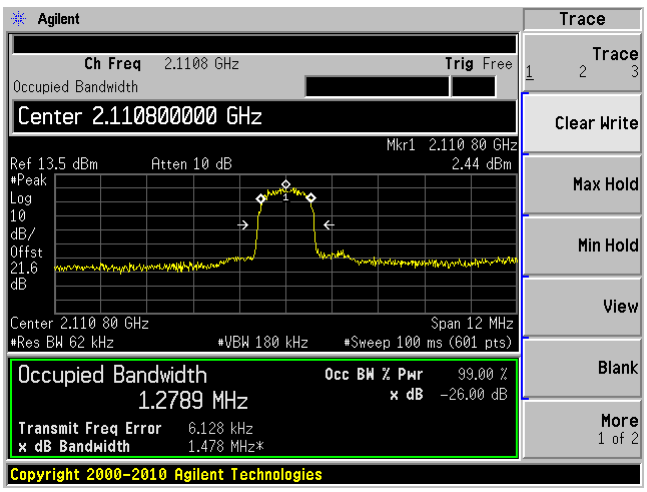
ALC OFF

Band 4, CDMA/EVDO, DL

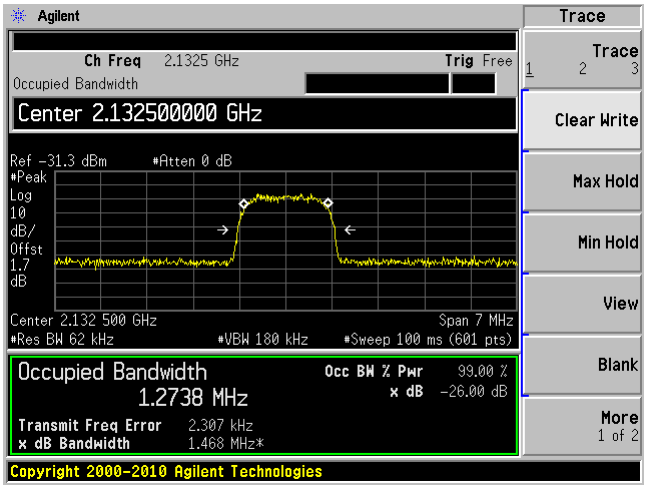
Low I/P



Low O/P



Middle I/P



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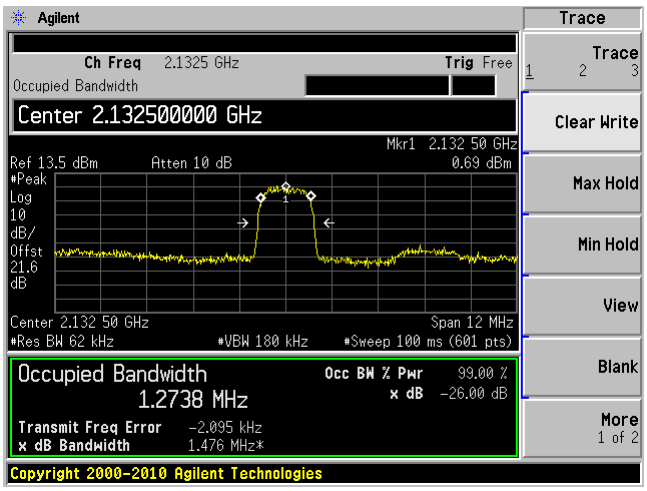
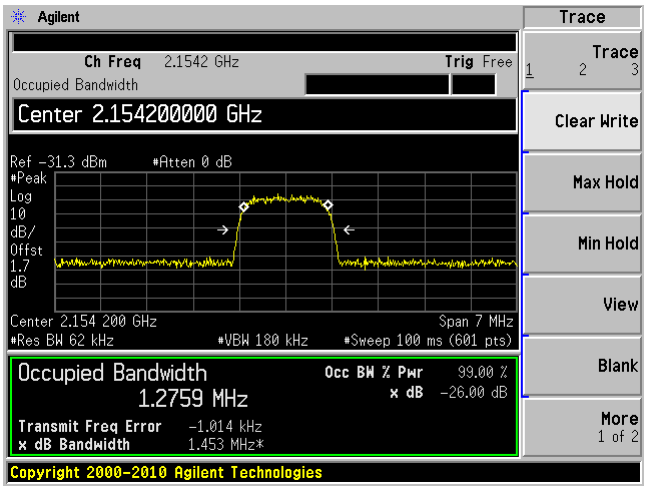


High I/P



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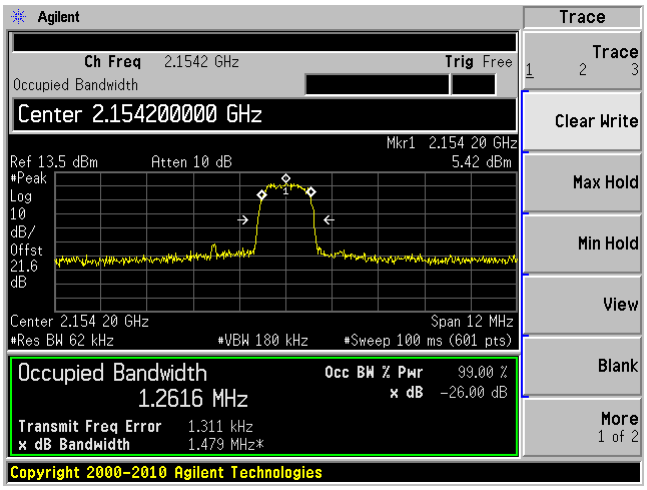

Band 4, CDMA/EVDO, UL

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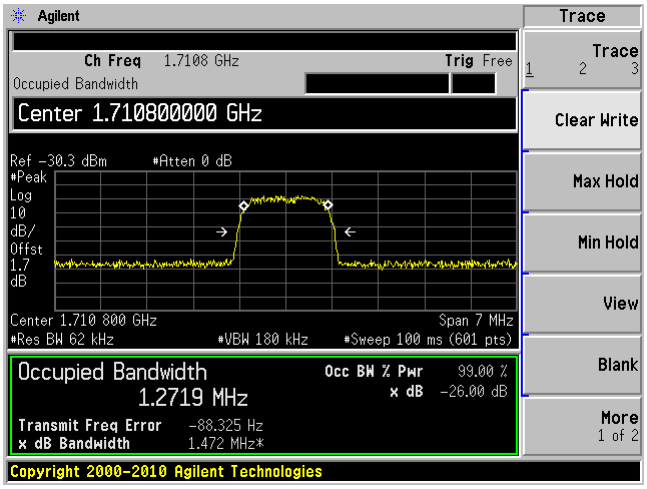

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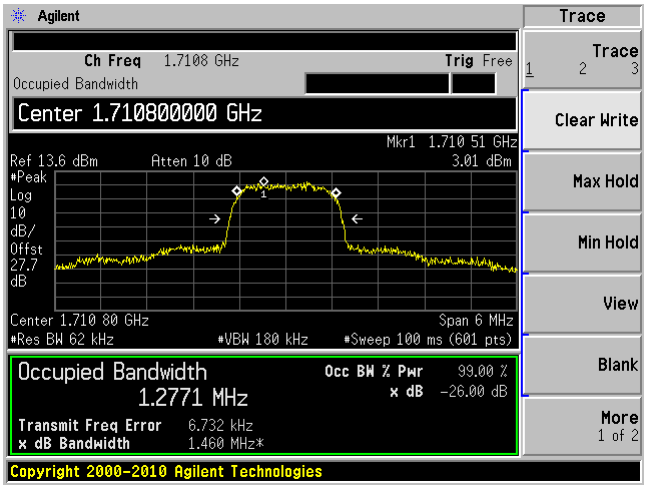
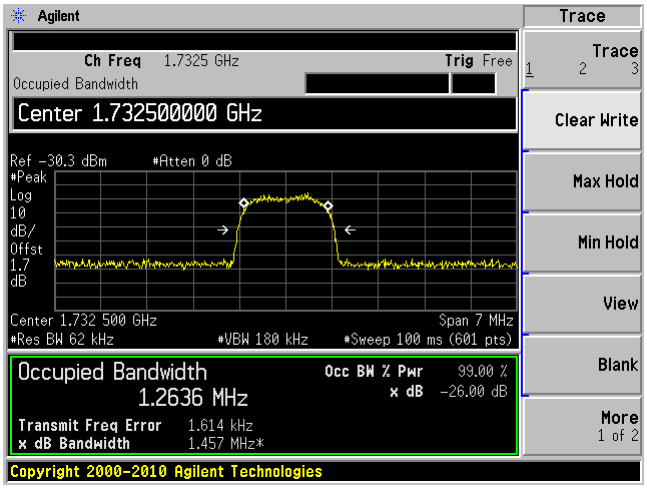


Middle I/P



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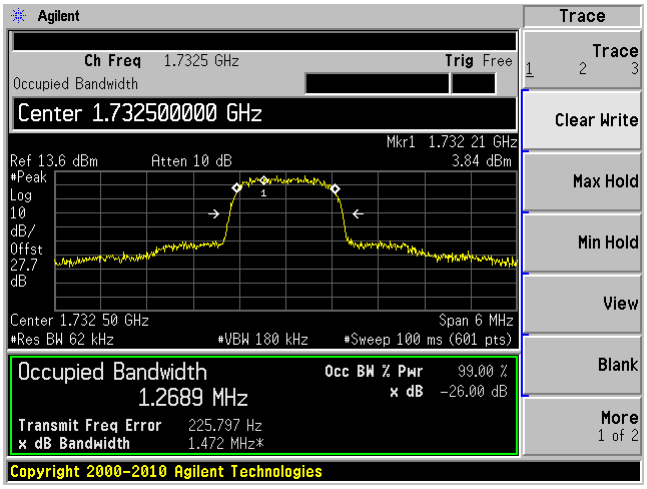

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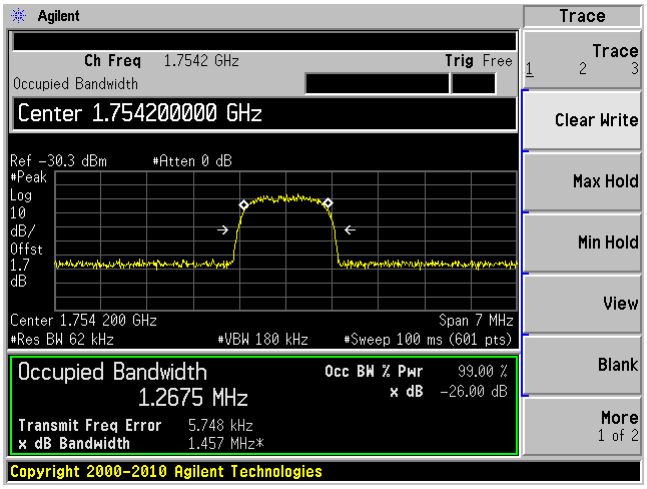

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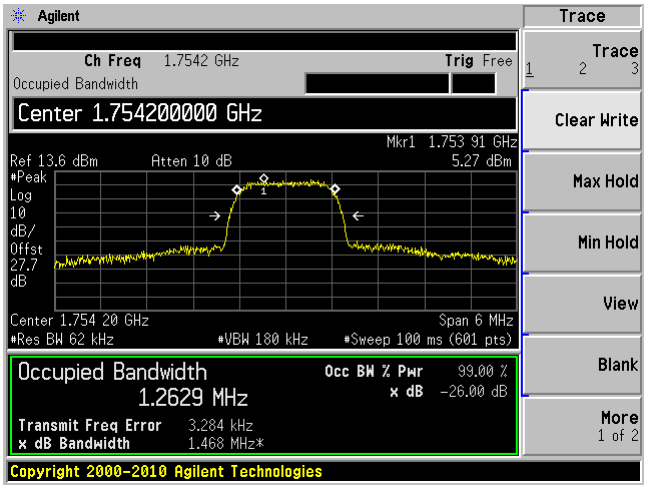
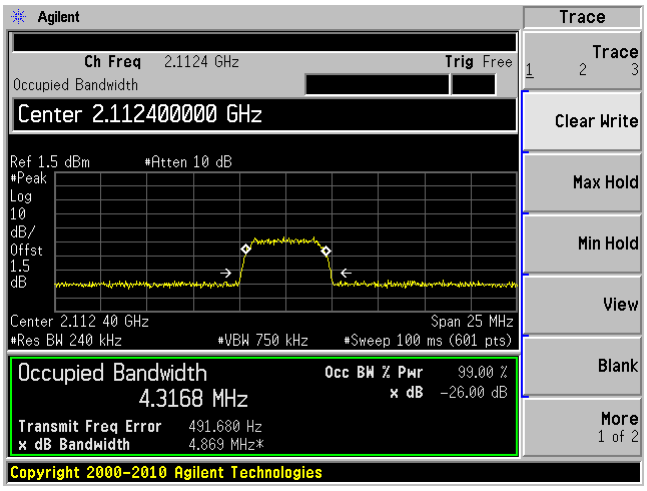
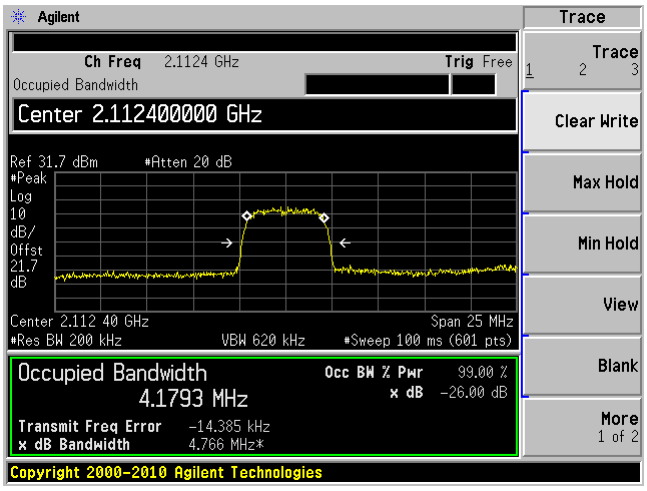


Band 4, WCDMA, DL

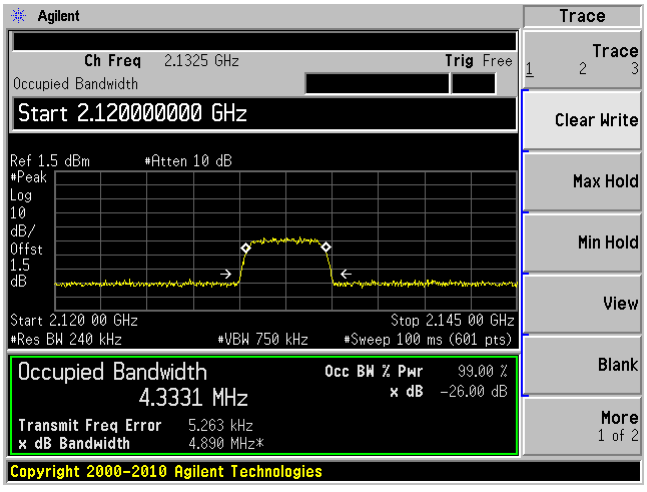
Low I/P



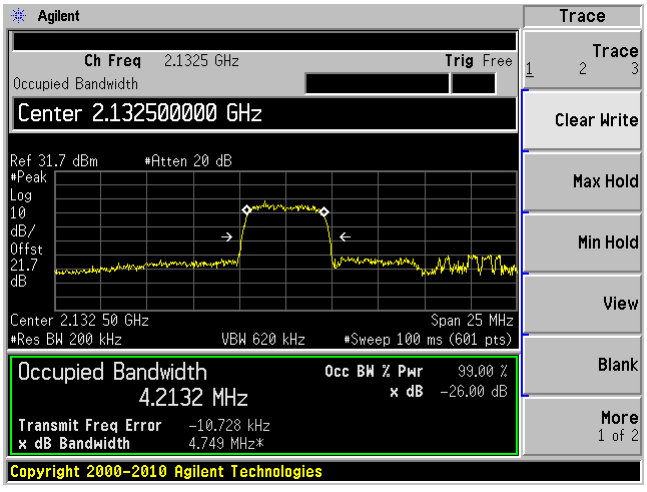
Low O/P



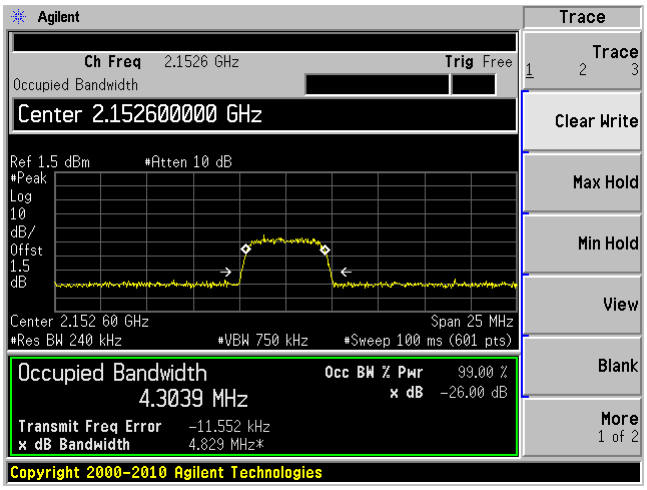
Middle I/P



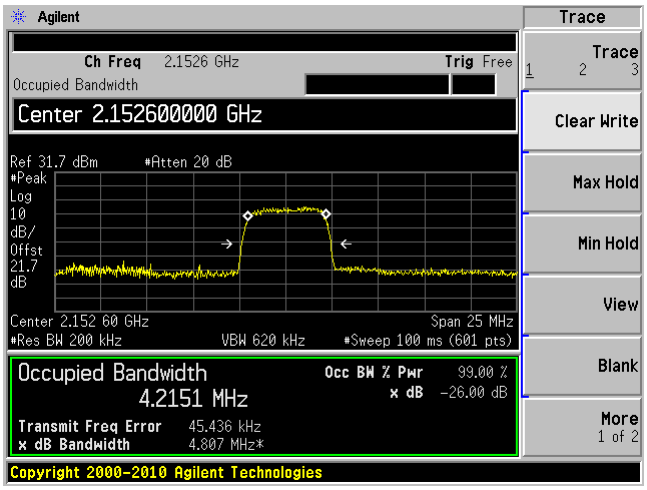
Middle O/P



High I/P

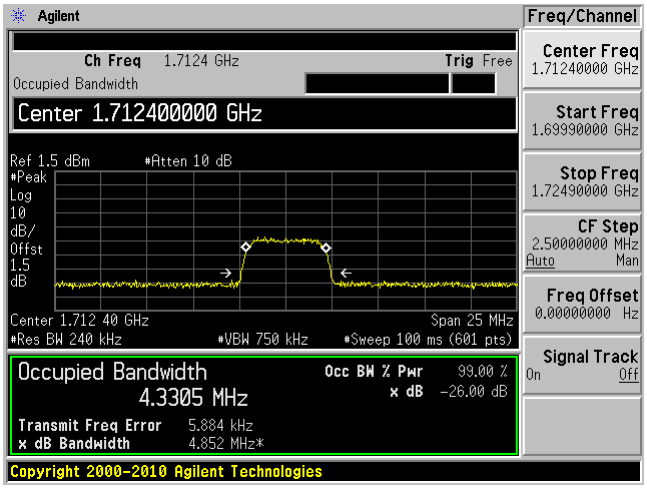


High O/P

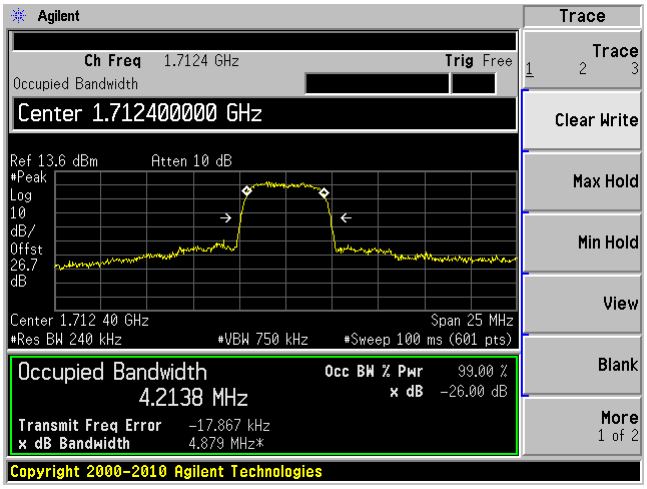


Band 4, WCDMA, UL

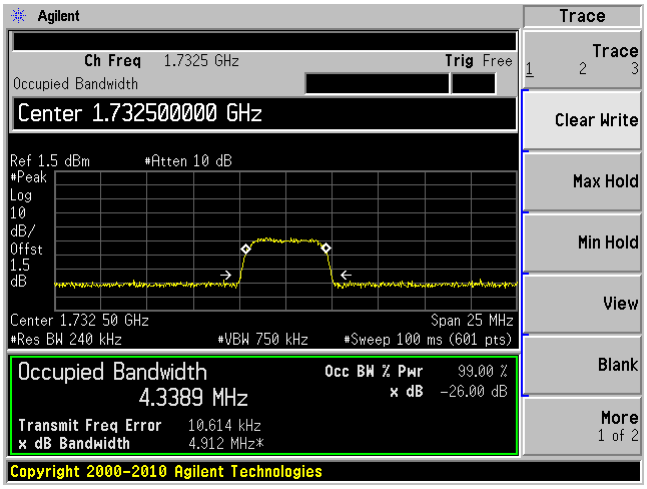
Low I/P



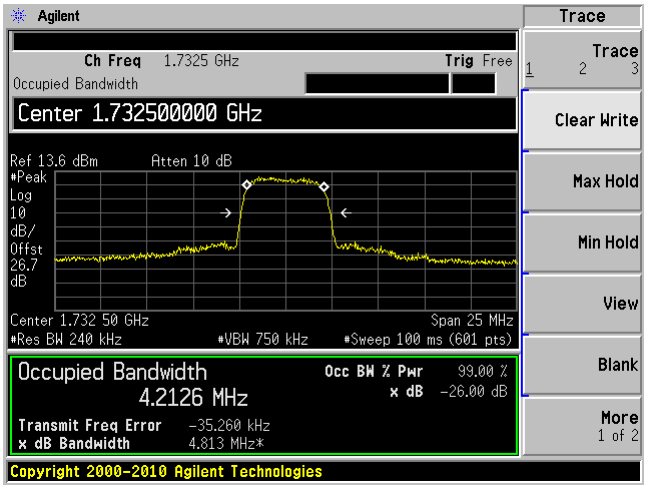
Low O/P



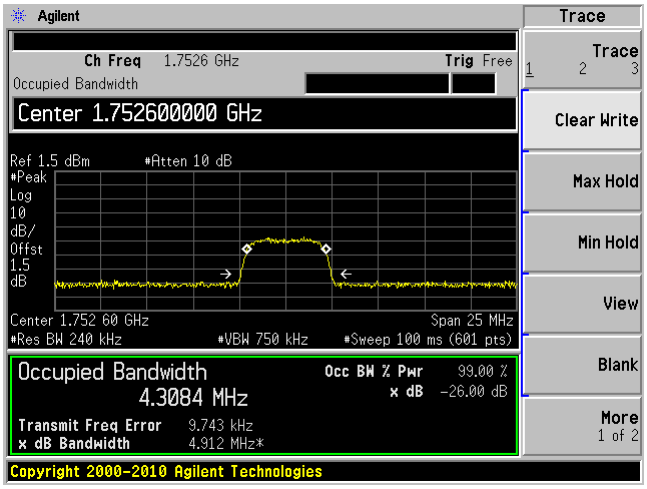
Middle I/P



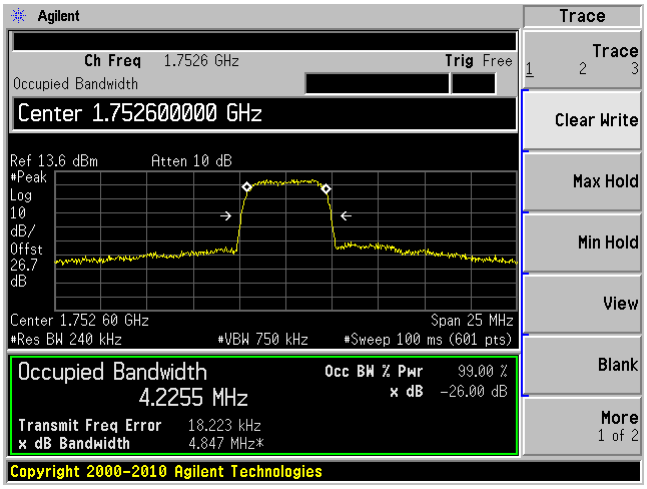
Middle O/P



High I/P

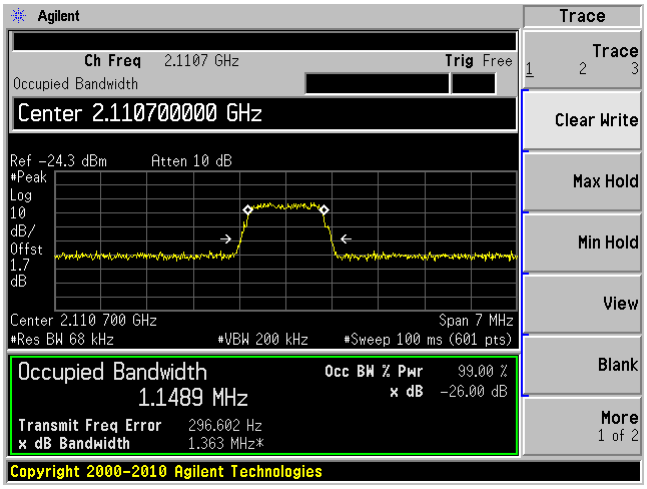


High O/P

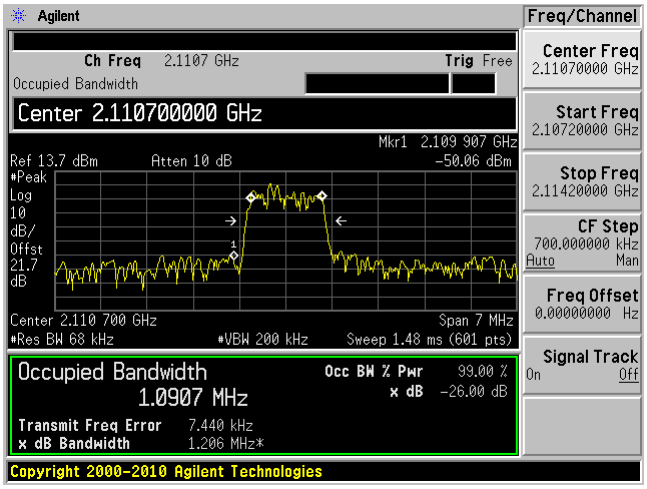


LTE Band 4, DL, 1.4 MHz, QPSK

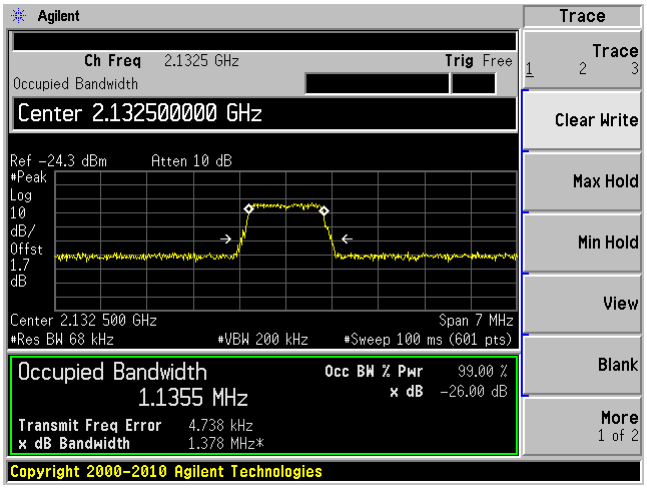
Low I/P



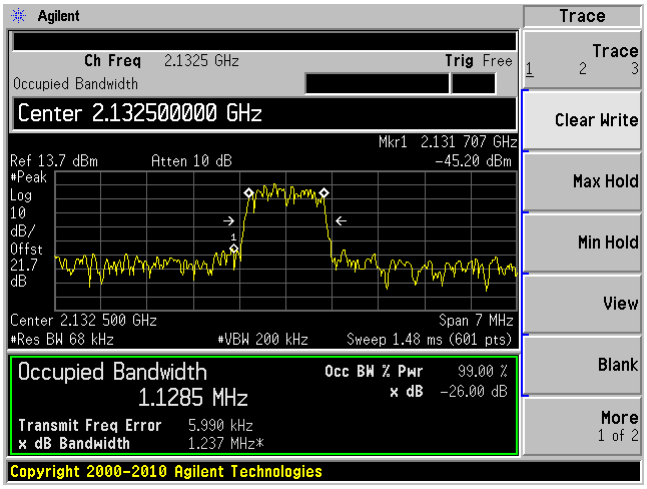
Low O/P



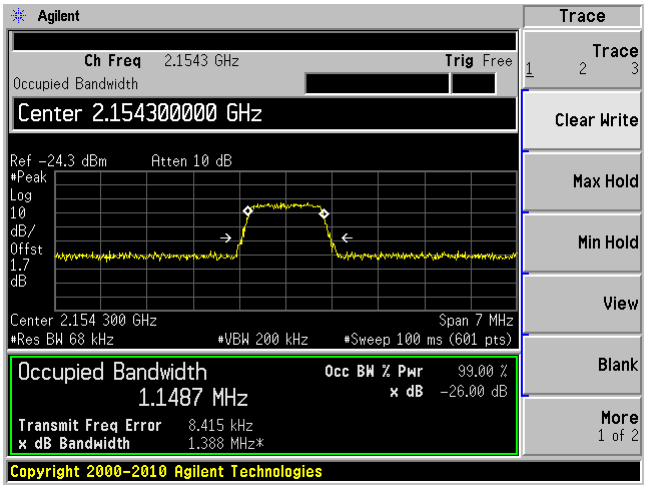
Middle I/P



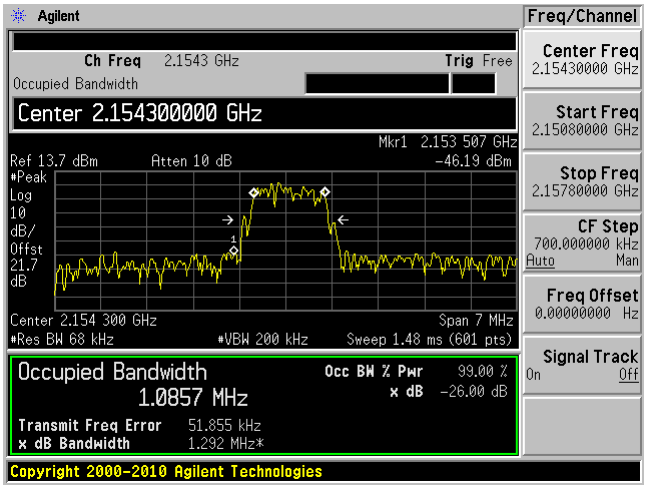
Middle O/P



High I/P

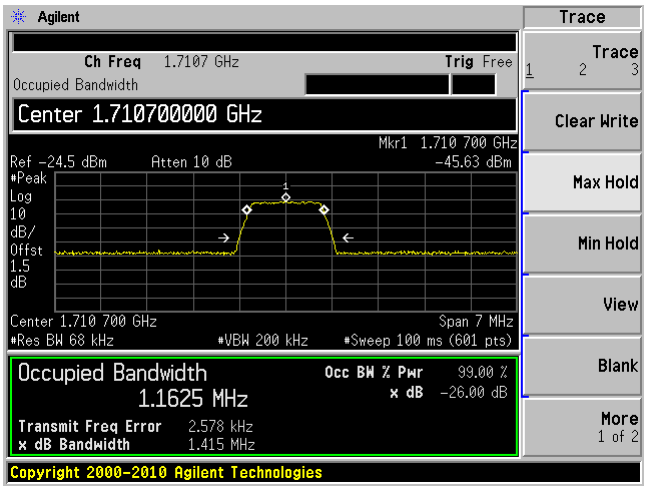


High O/P

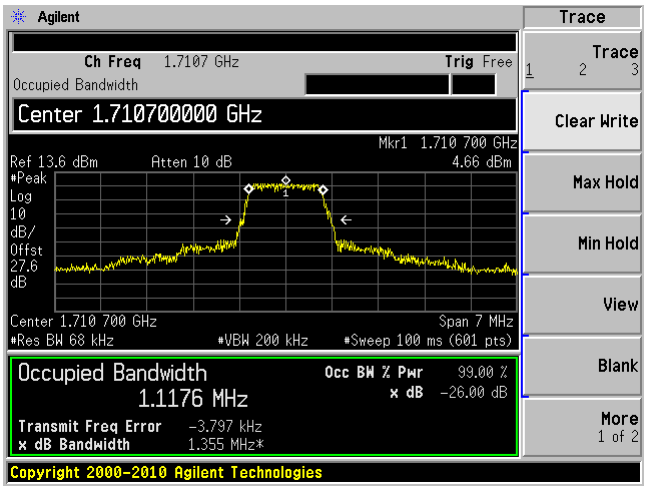


LTE Band 4, UL, 1.4 MHz, QPSK

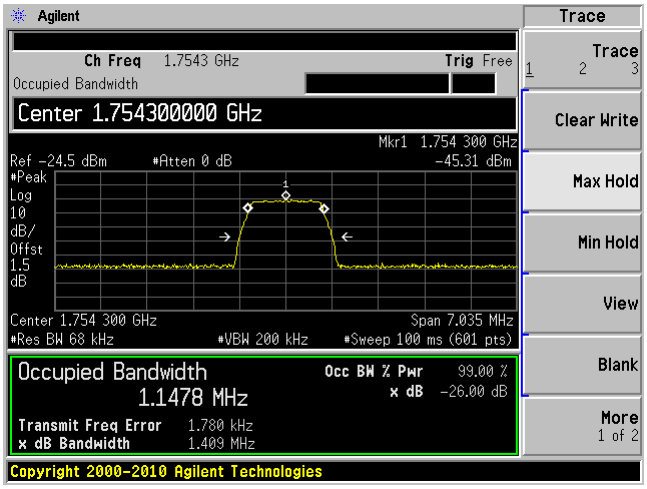
Low I/P



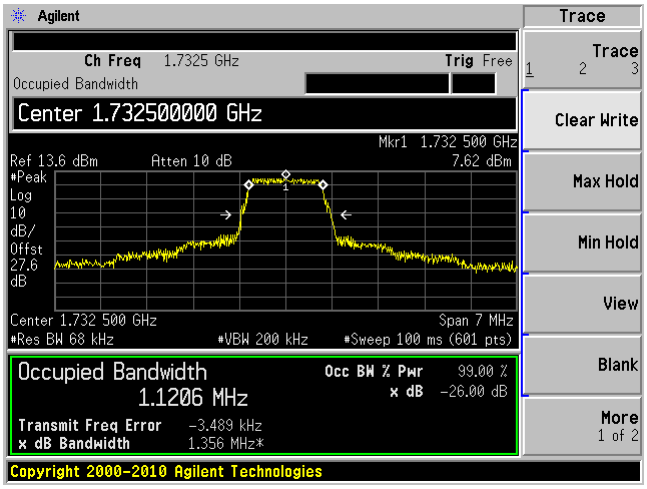
Low O/P



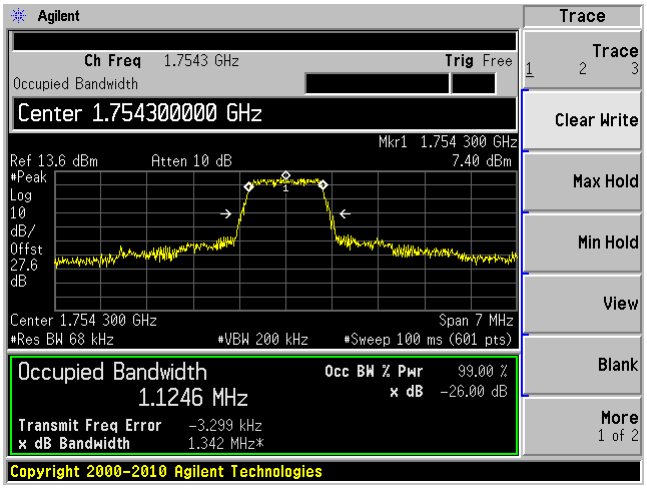
Middle I/P



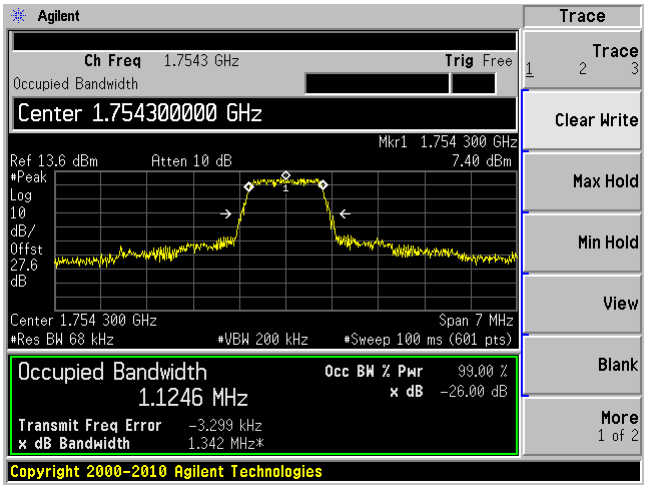
Middle O/P



High I/P

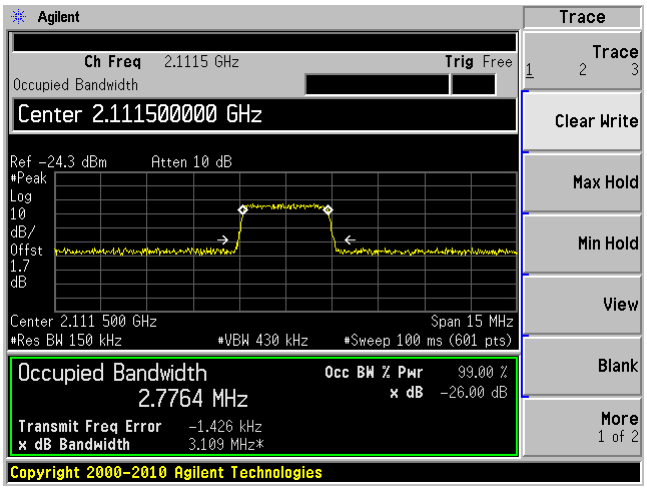


High O/P

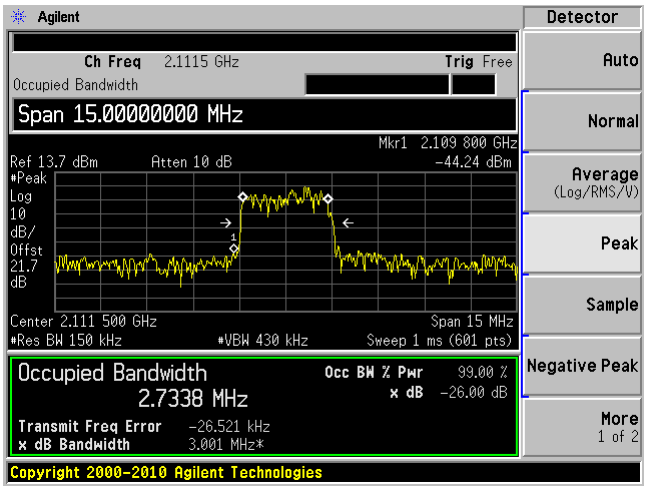


LTE Band 4, DL, 3 MHz, QPSK

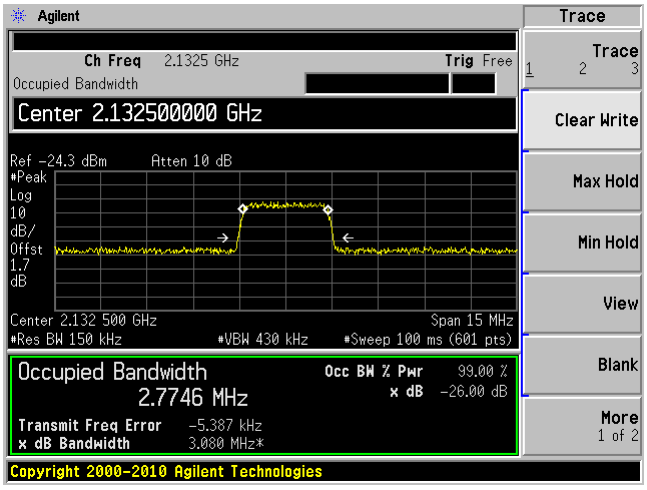
Low I/P



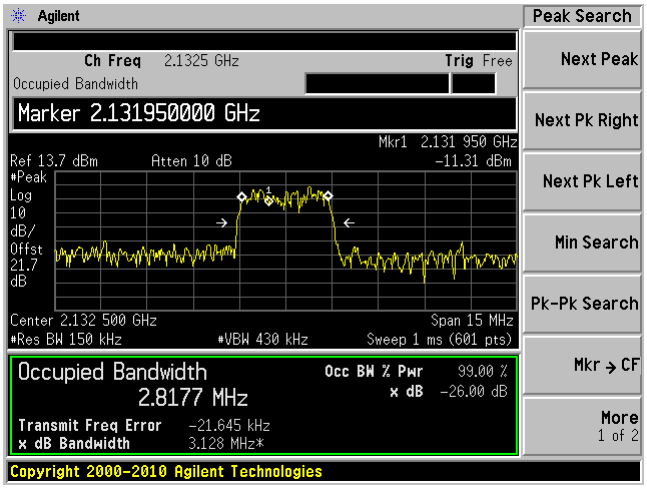
Low O/P



Middle I/P



Middle O/P



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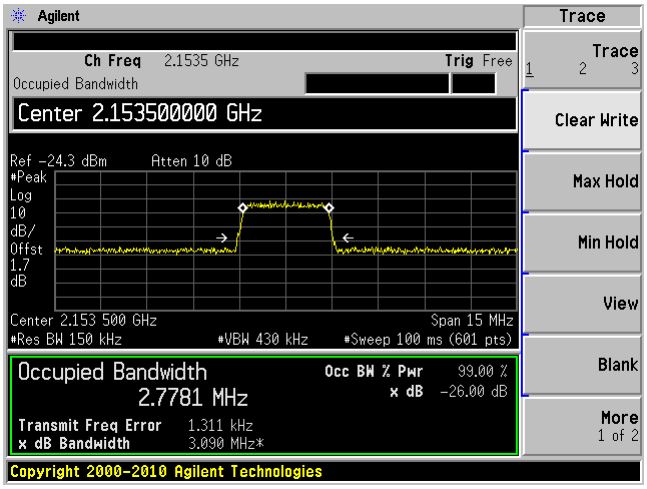
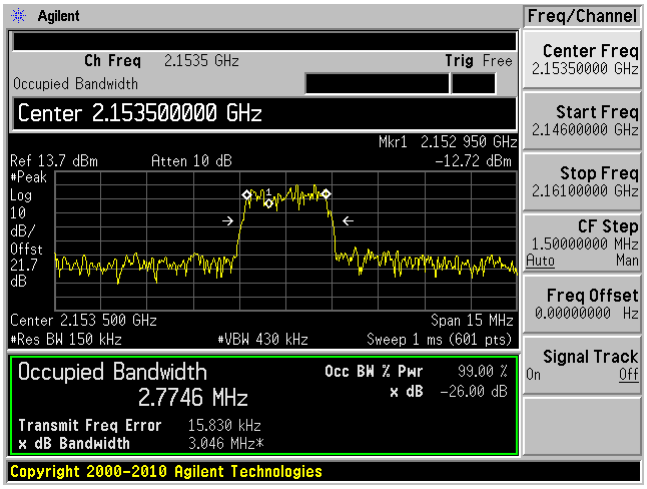
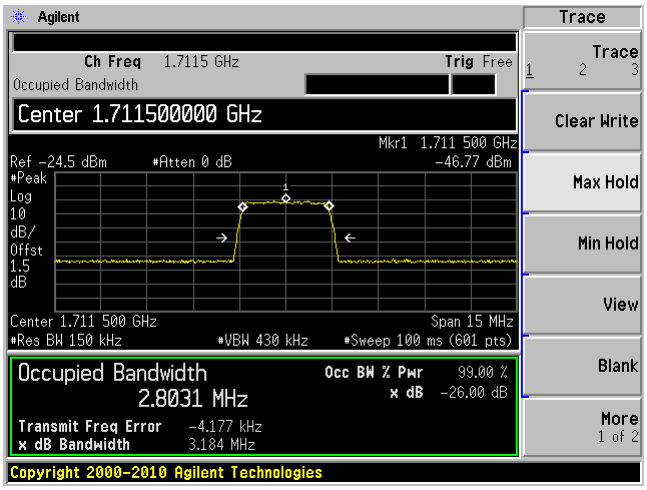


High O/P

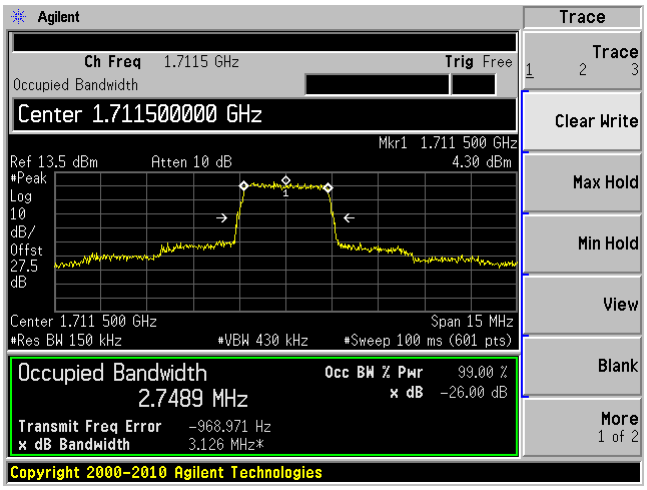


LTE Band 4, UL, 3 MHz, QPSK

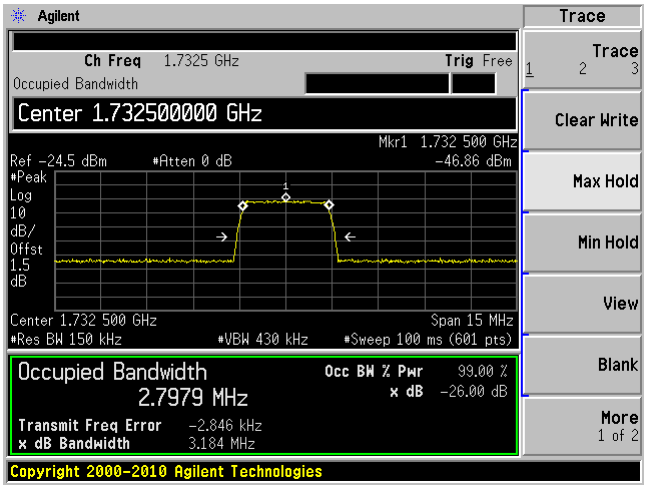
Low I/P



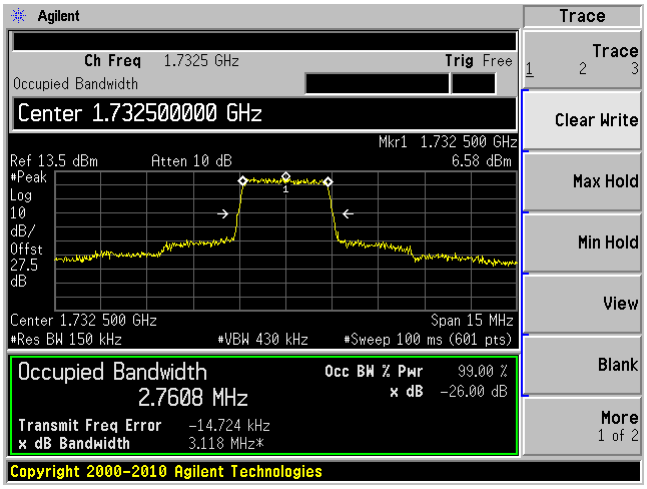
Low O/P



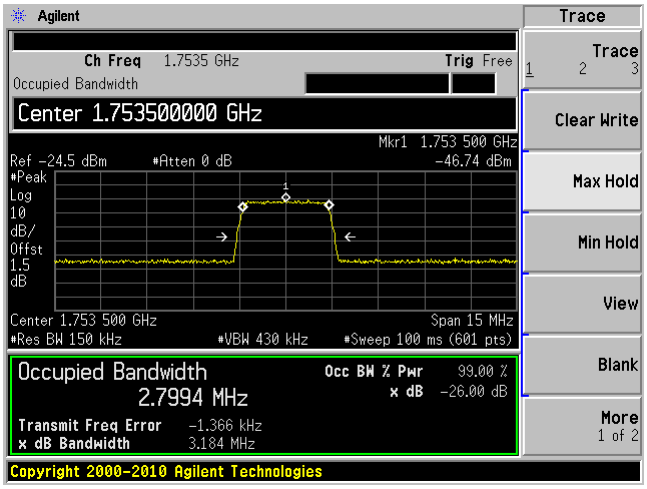
Middle I/P



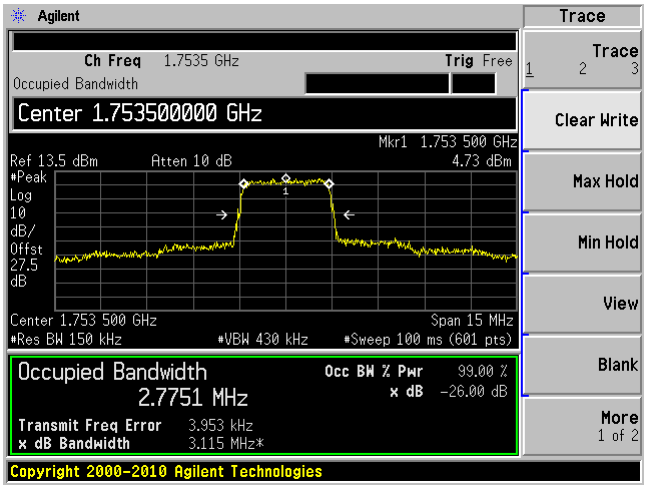
Middle O/P



High I/P

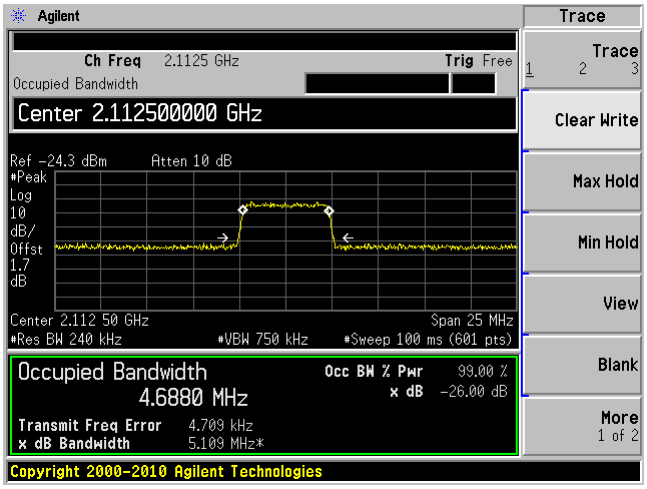


High O/P

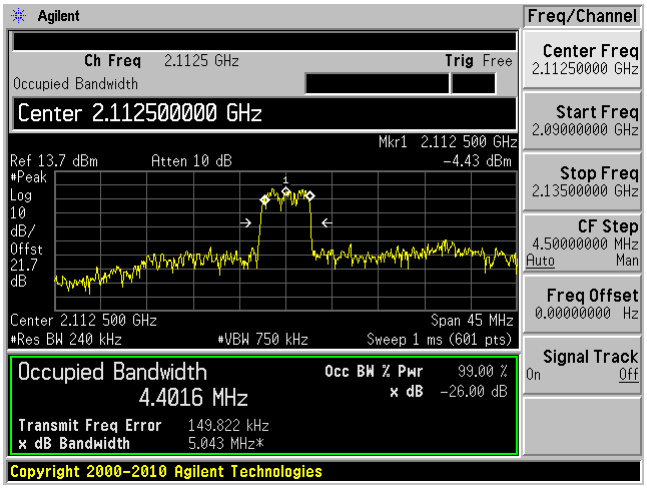


LTE Band 4, DL, 5 MHz, QPSK

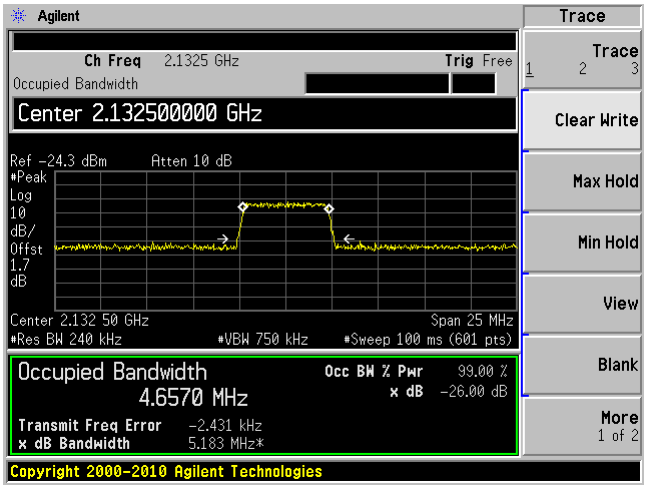
Low I/P



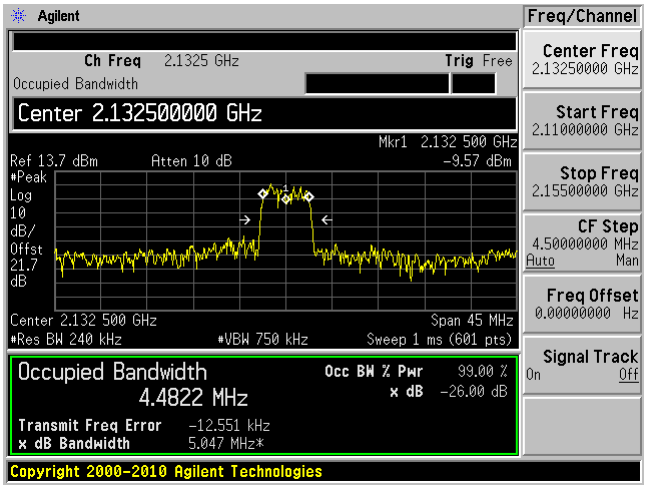
Low O/P



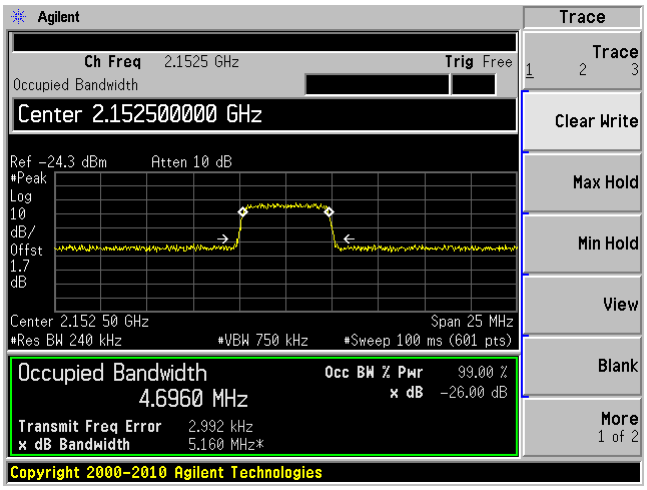
Middle I/P



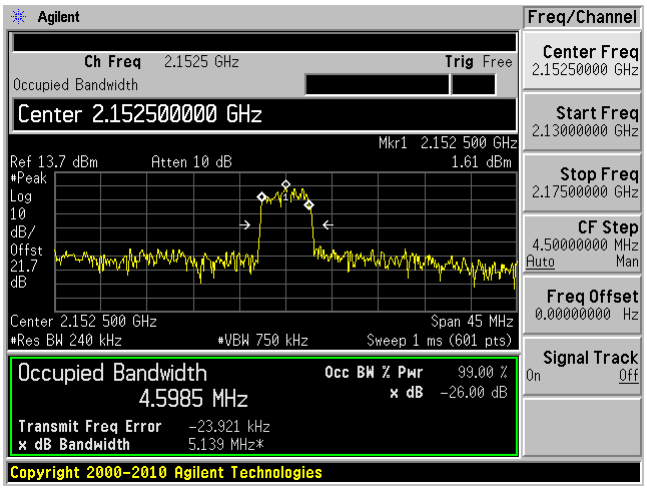
Middle O/P



High I/P

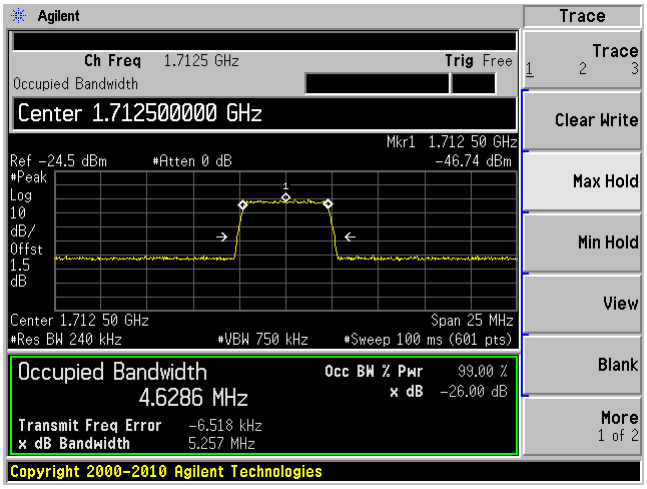


High O/P

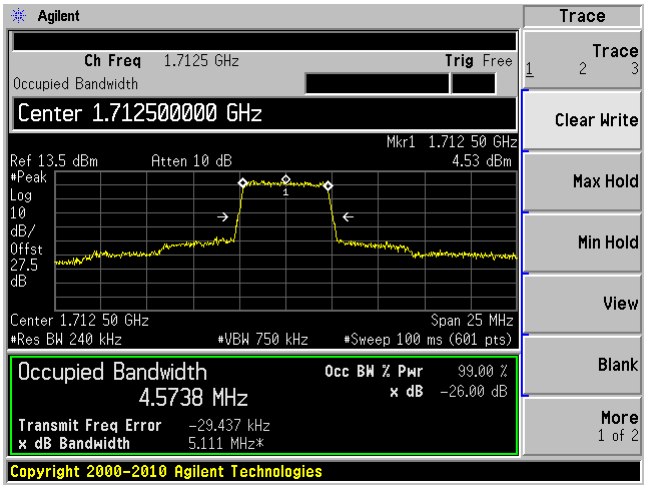


LTE Band 4, UL, 5 MHz, QPSK

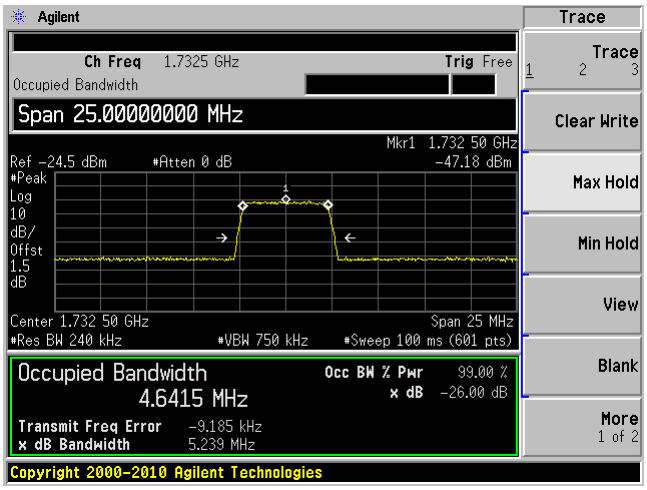
Low I/P



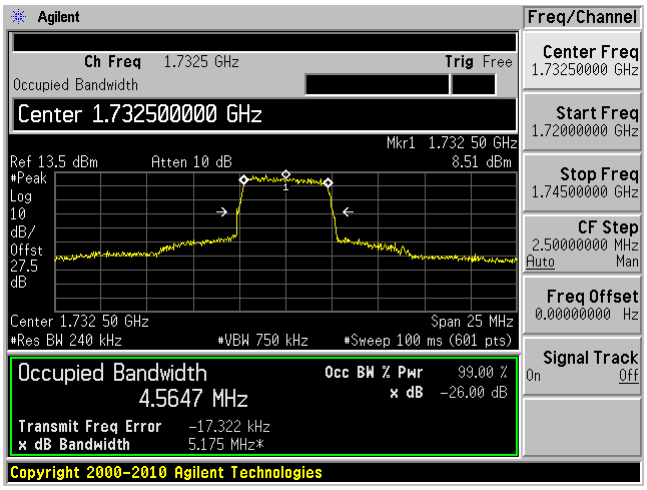
Low O/P



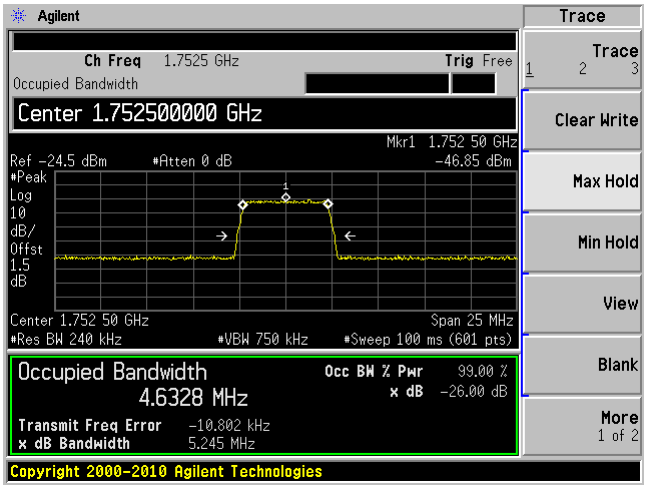
Middle I/P



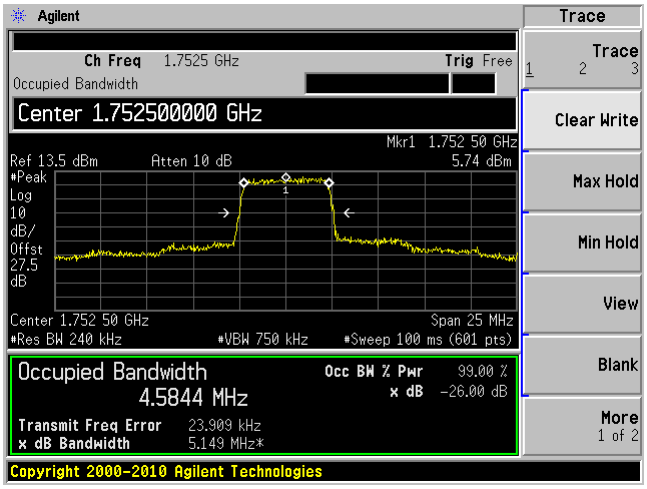
Middle O/P



High I/P

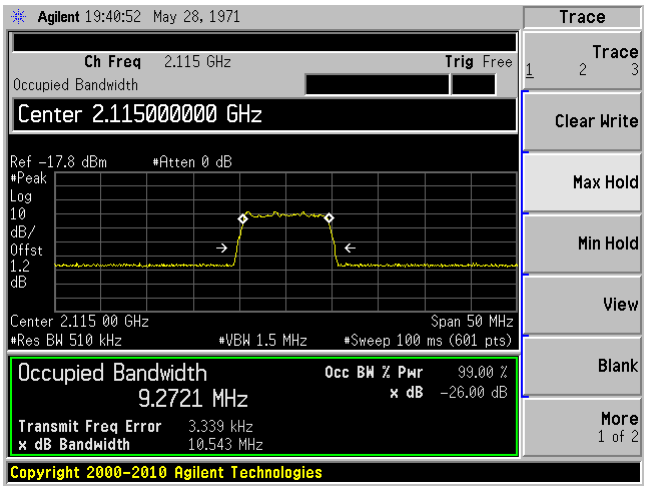


High O/P

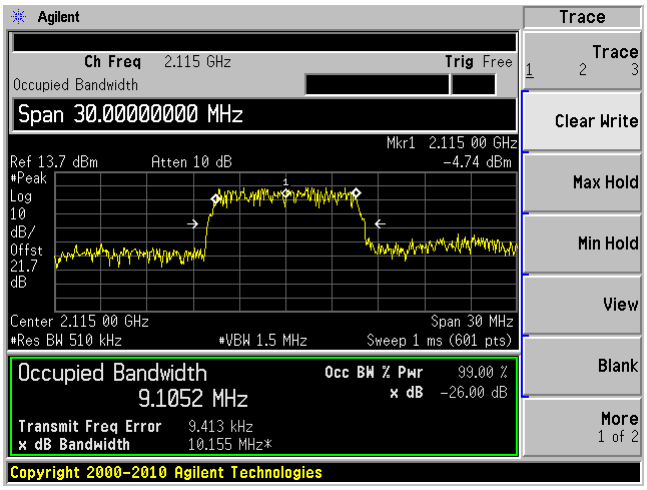


LTE Band 4, DL, 10 MHz, QPSK

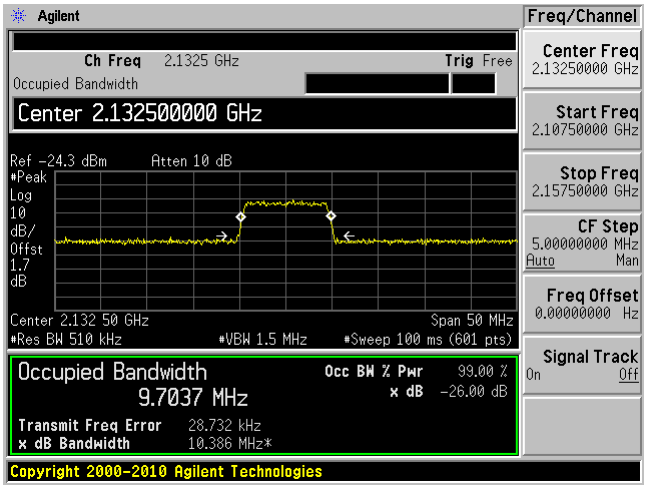
Low I/P



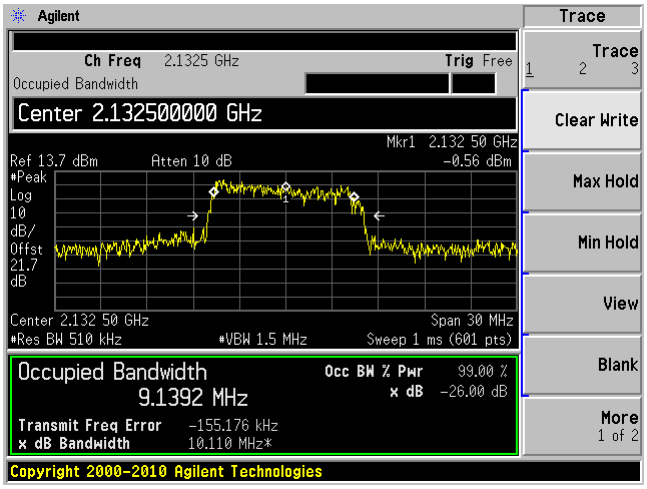
Low O/P



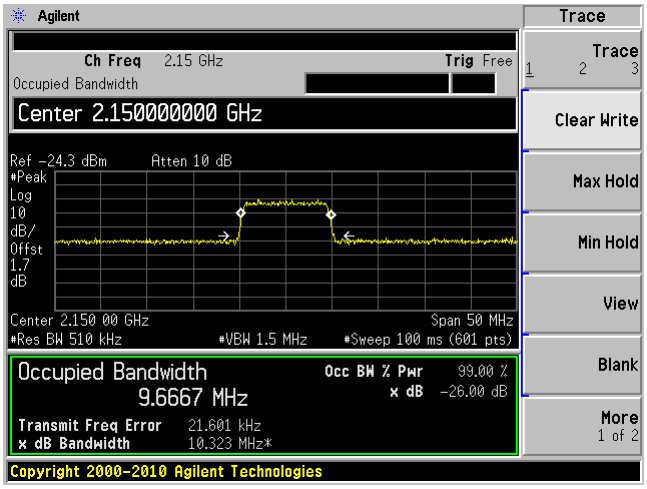
Middle I/P



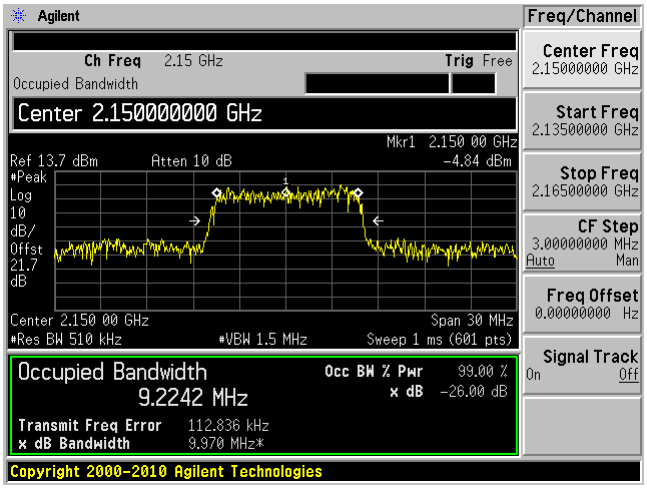
Middle O/P



High I/P

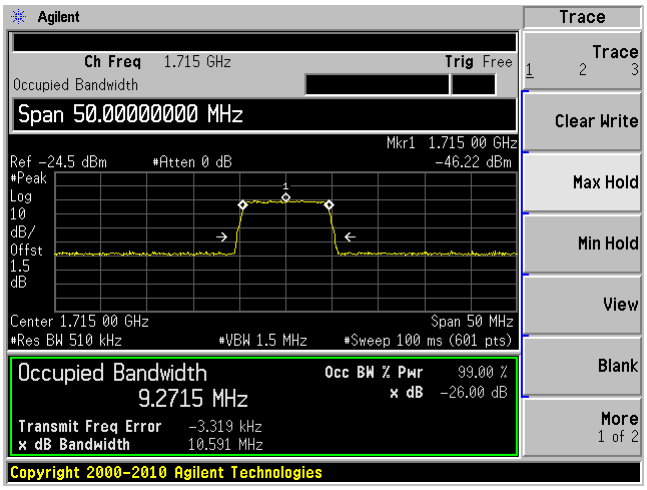


High O/P

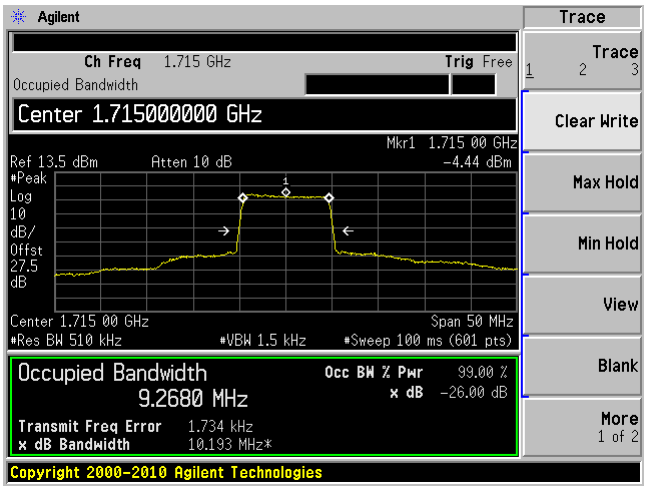


LTE Band 4, UL, 10 MHz, QPSK

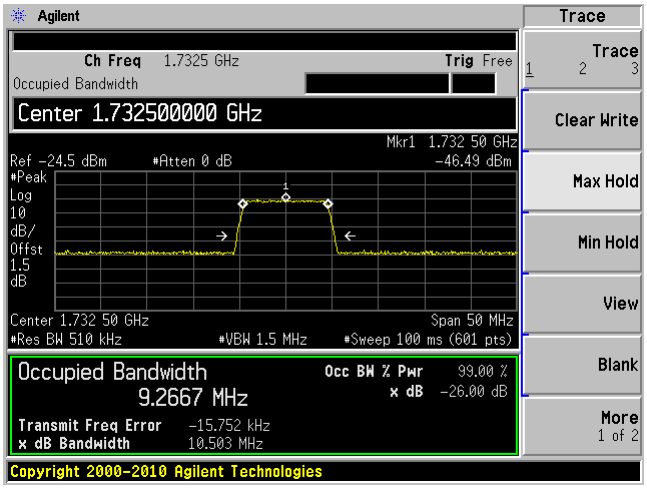
Low I/P



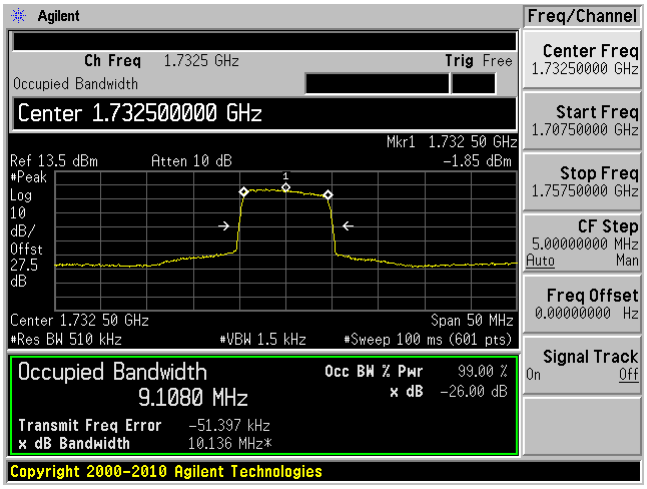
Low O/P



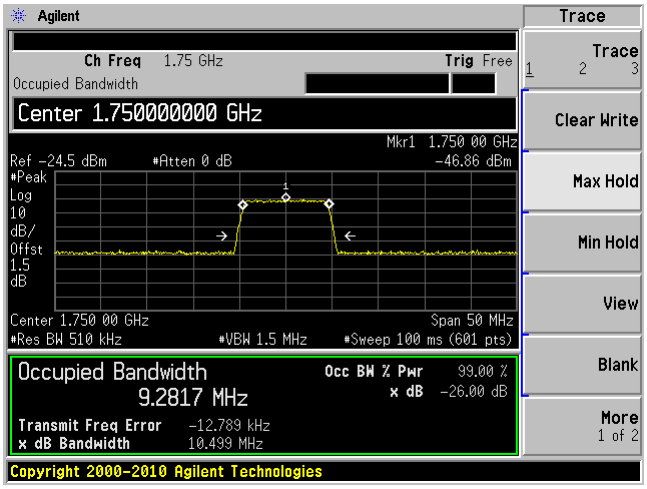
Middle I/P



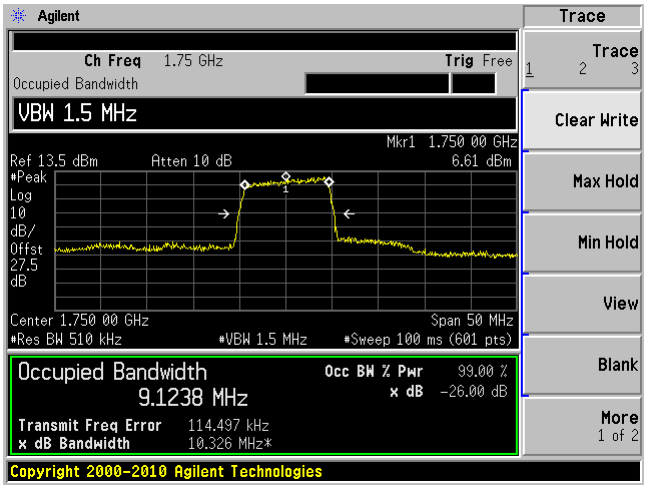
Middle O/P



High I/P

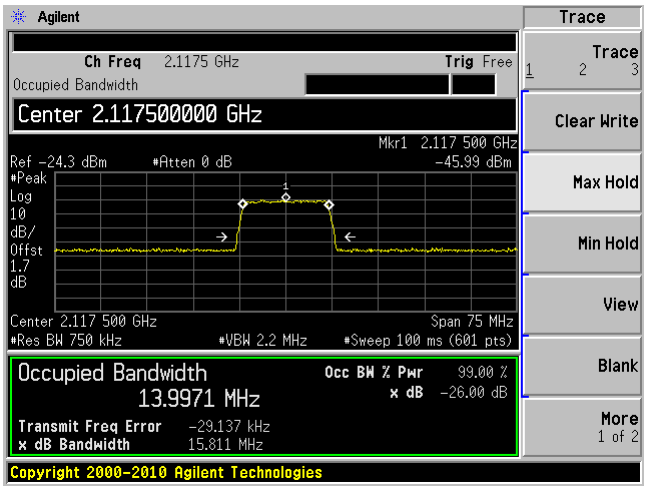


High O/P

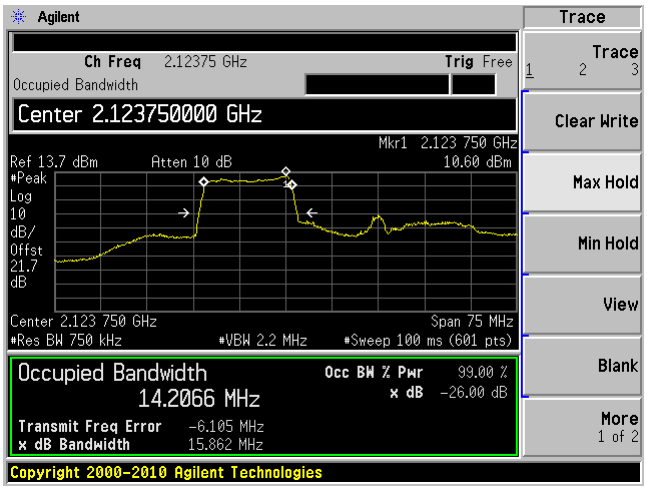


LTE Band 4, DL, 15 MHz, QPSK

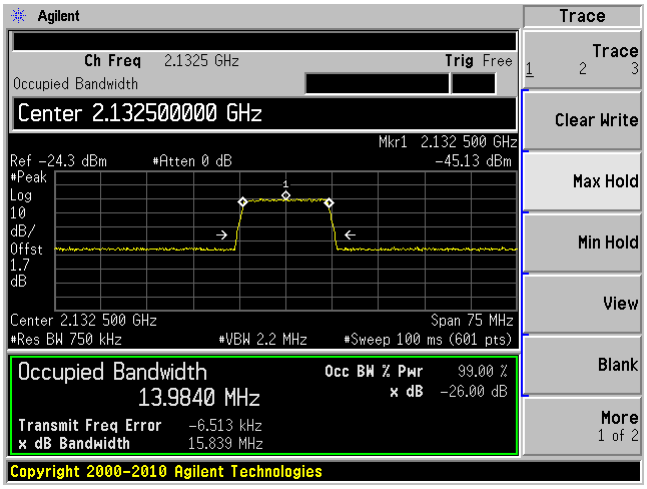
Low I/P



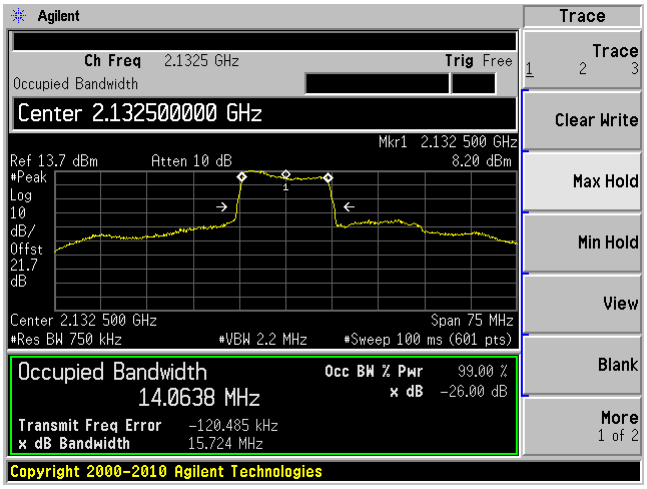
Low O/P



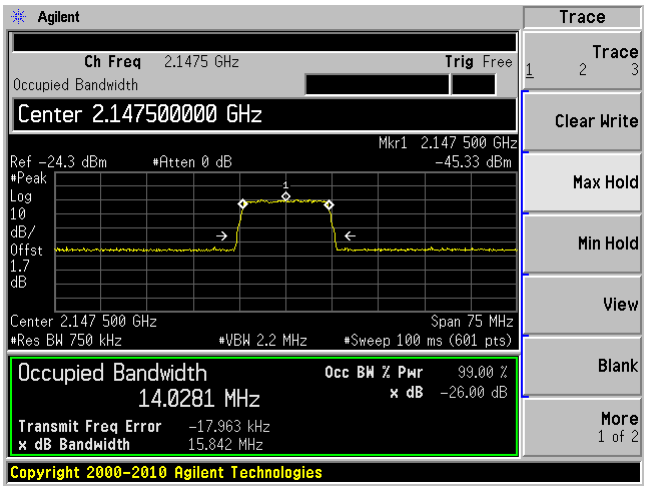
Middle I/P



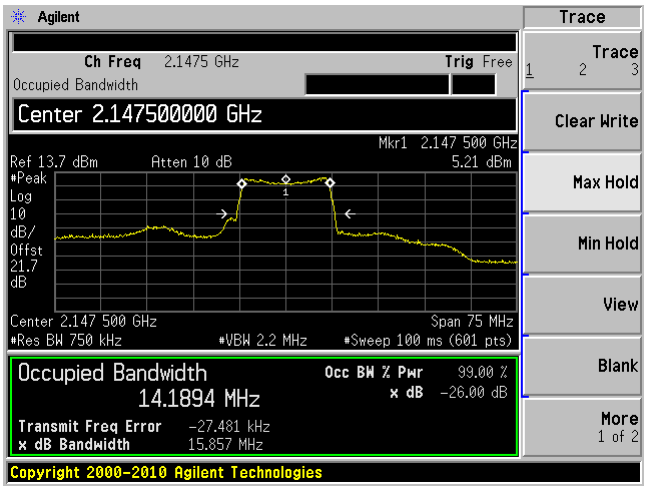
Middle O/P



High I/P

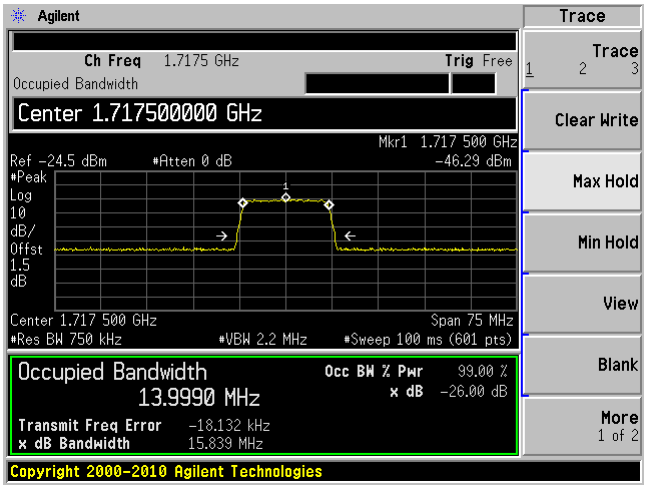


High O/P

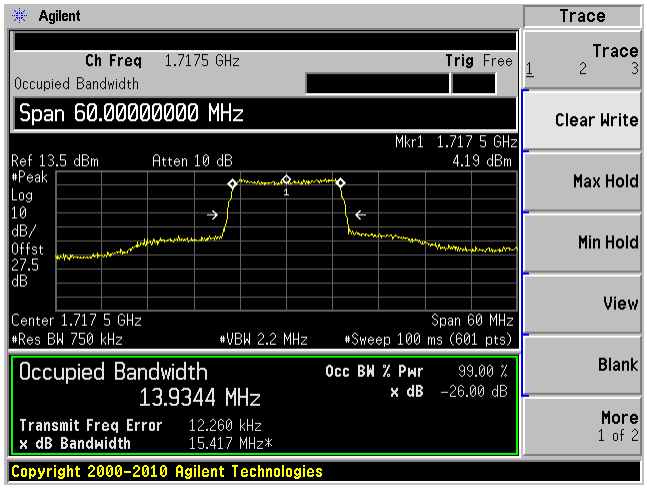


LTE Band 4, UL, 15 MHz, QPSK

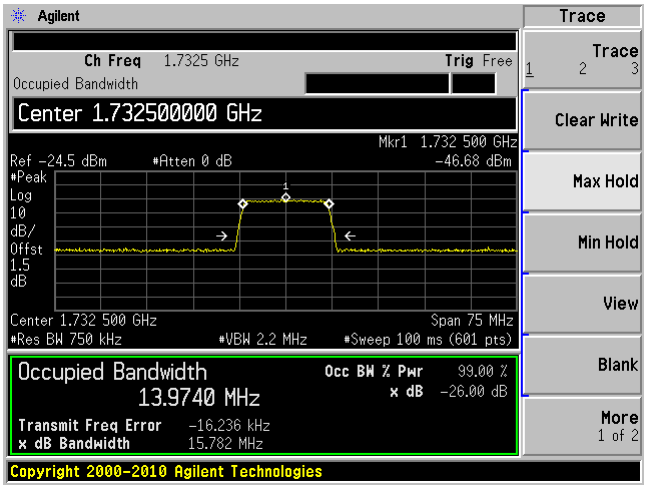
Low I/P



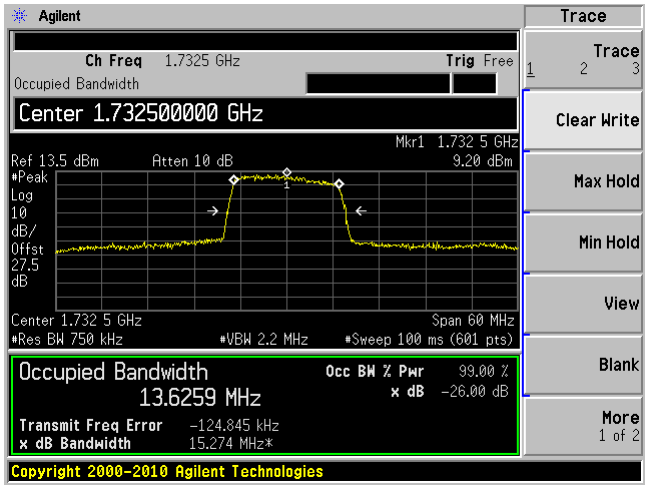
Low O/P



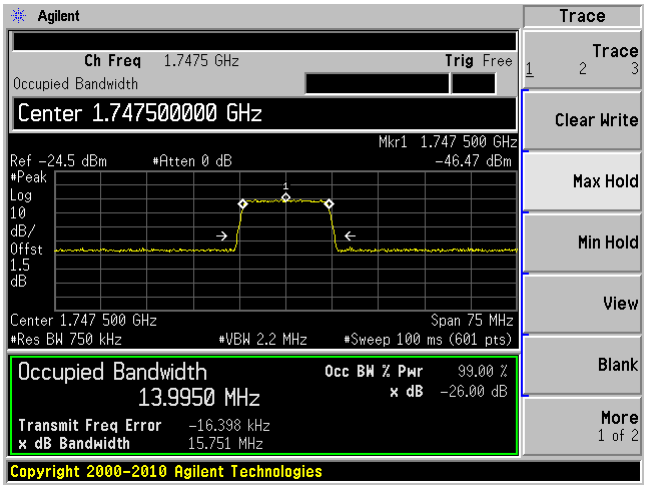
Middle I/P



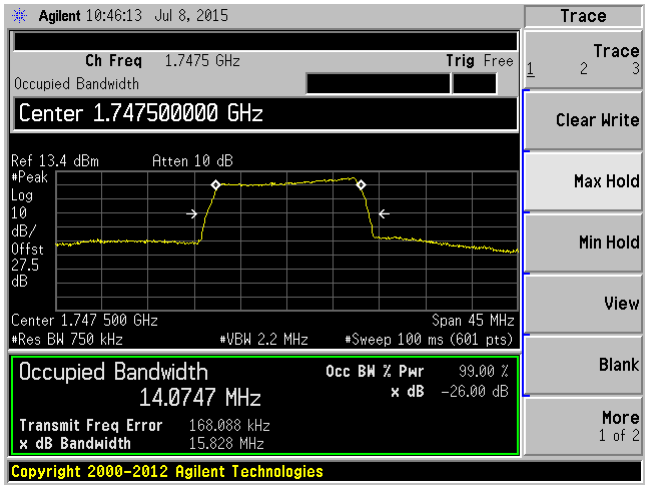
Middle O/P



High I/P

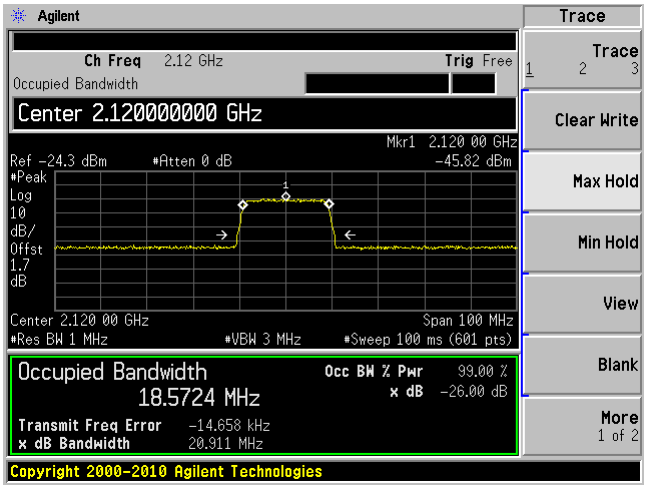


High O/P

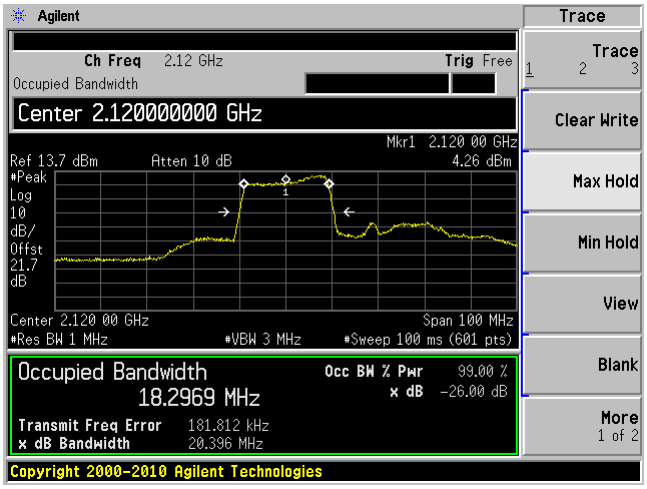


LTE Band 4, DL, 20 MHz, QPSK

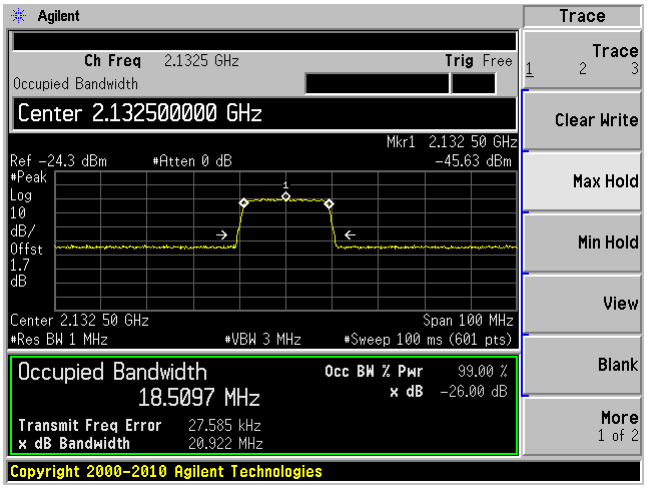
Low I/P



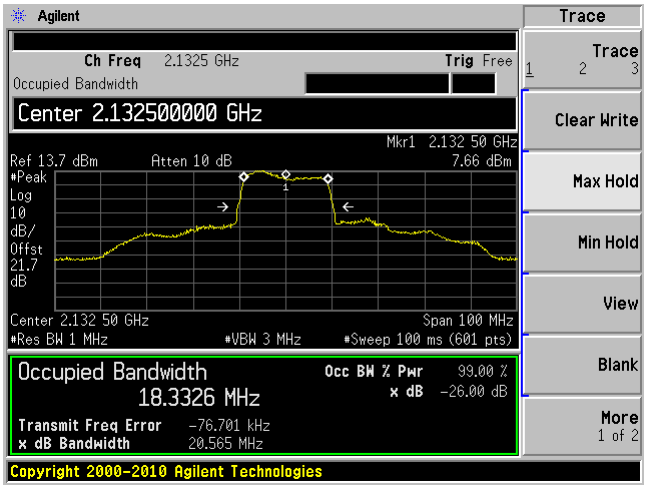
Low O/P



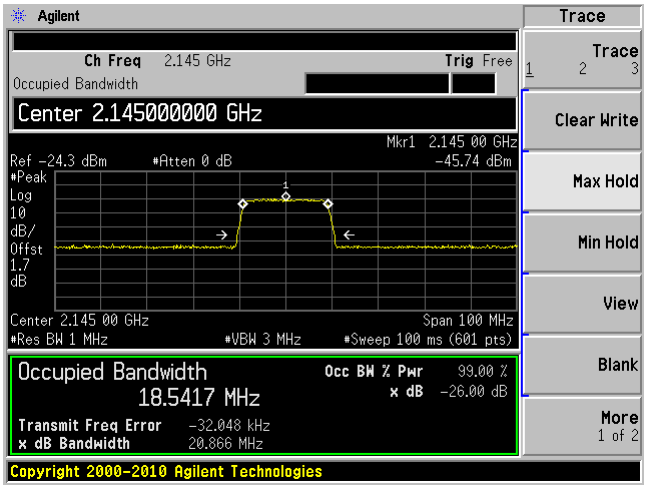
Middle I/P



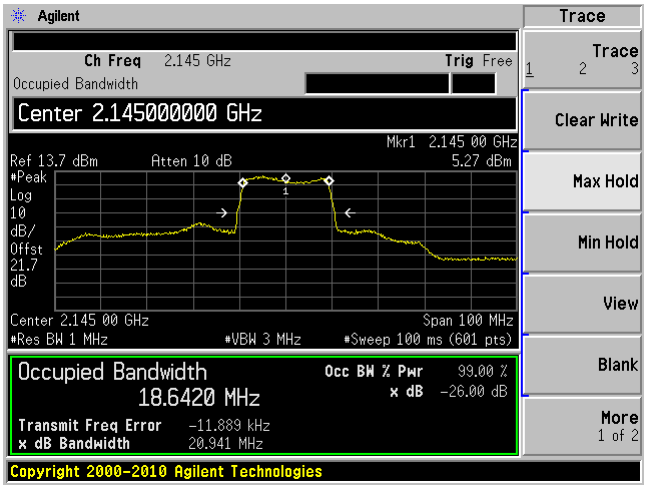
Middle O/P



High I/P

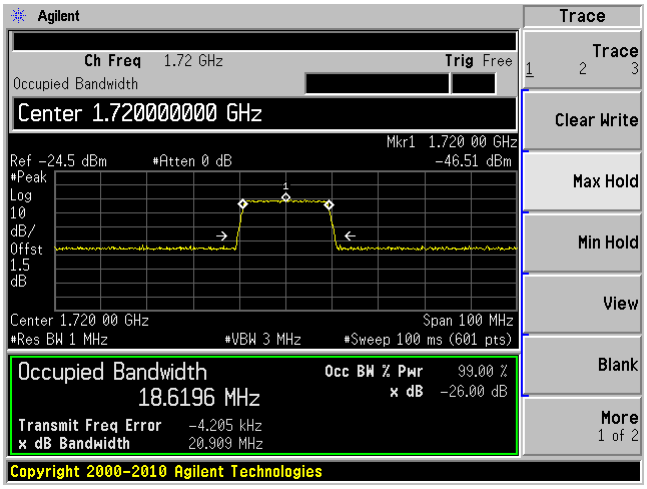


High O/P

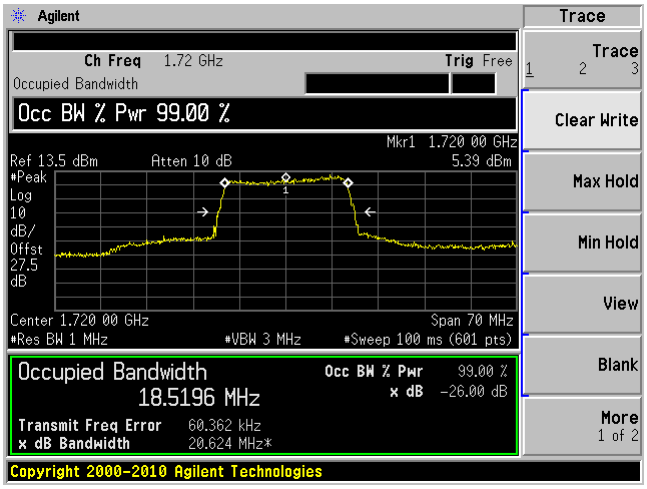


LTE Band 4, UL, 20 MHz, QPSK

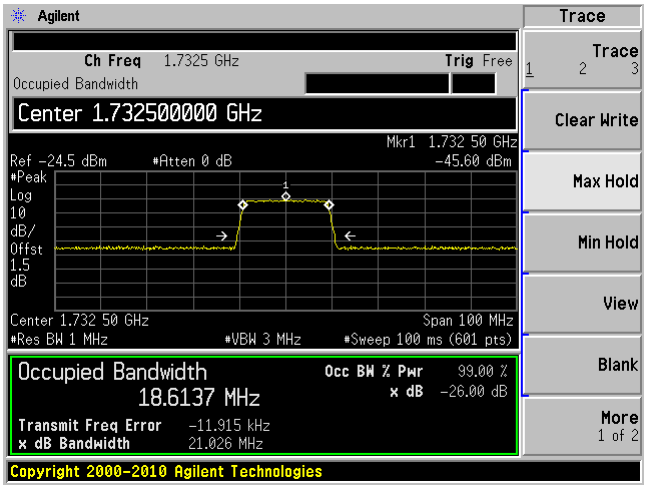
Low I/P



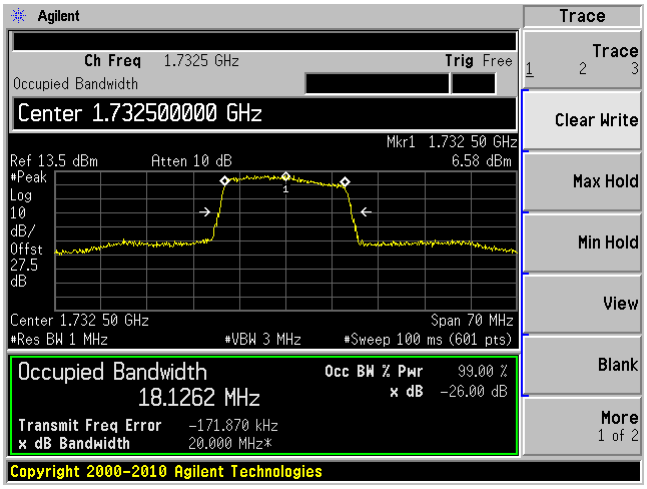
Low O/P



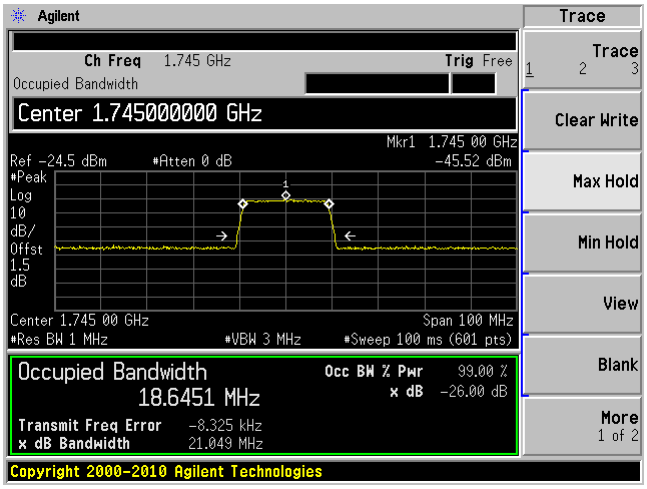
Middle I/P



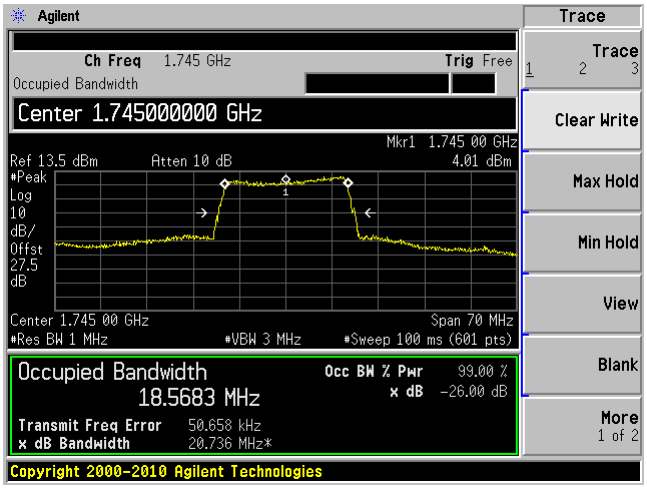
Middle O/P



High I/P

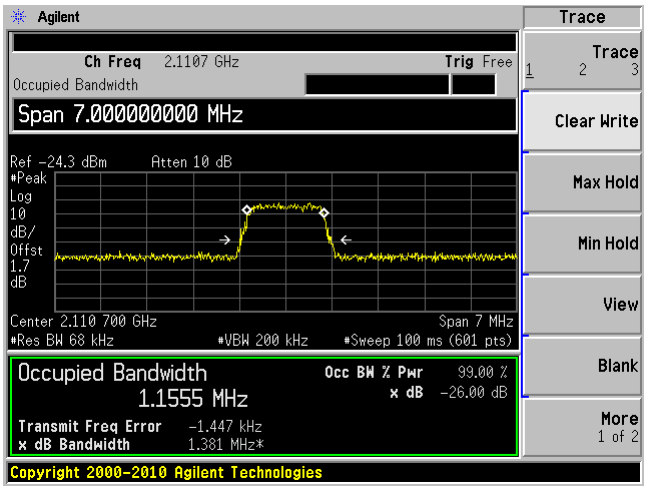


High O/P

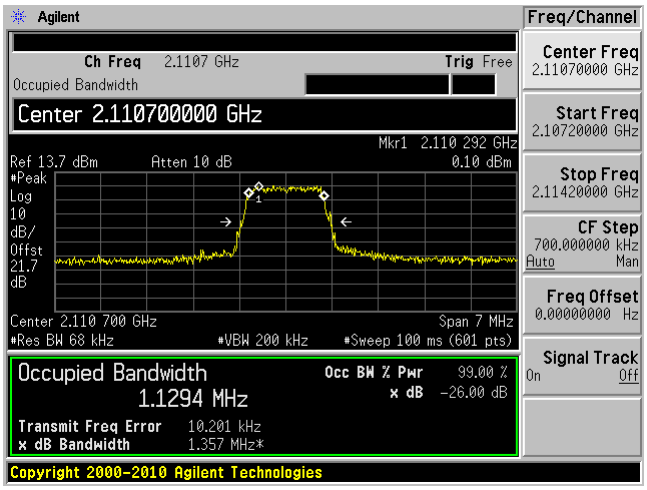


LTE Band 4, DL, 1.4 MHz, 16QAM

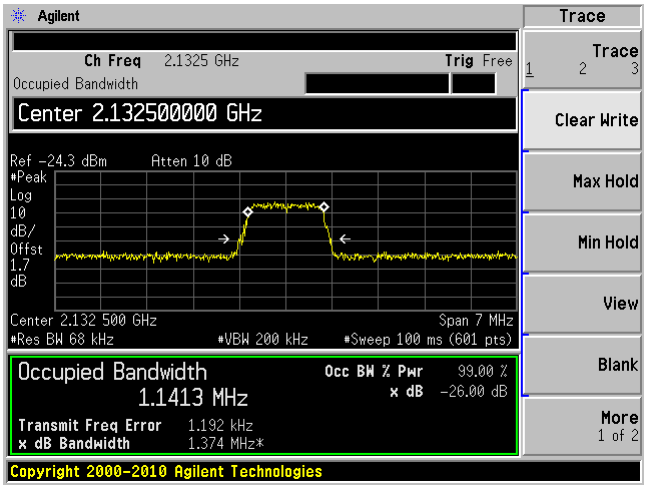
Low I/P



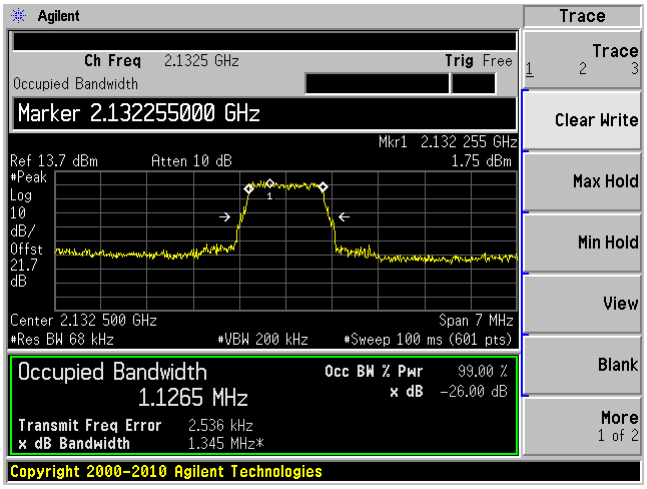
Low O/P



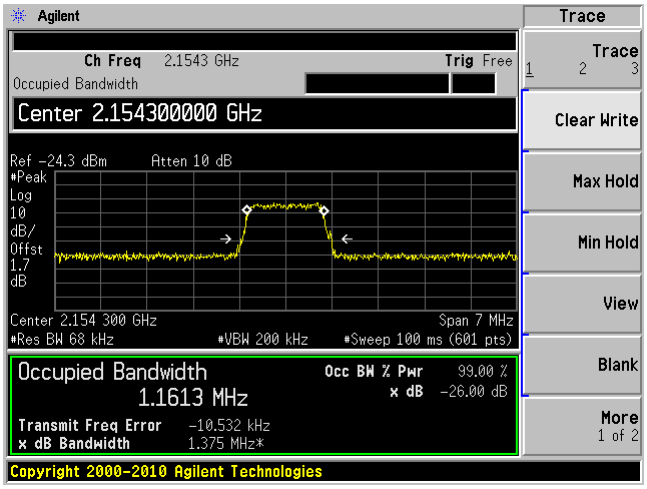
Middle I/P



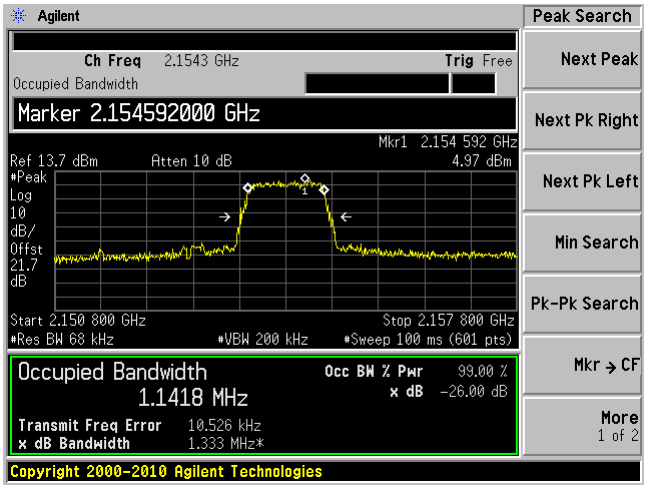
Middle O/P



High I/P

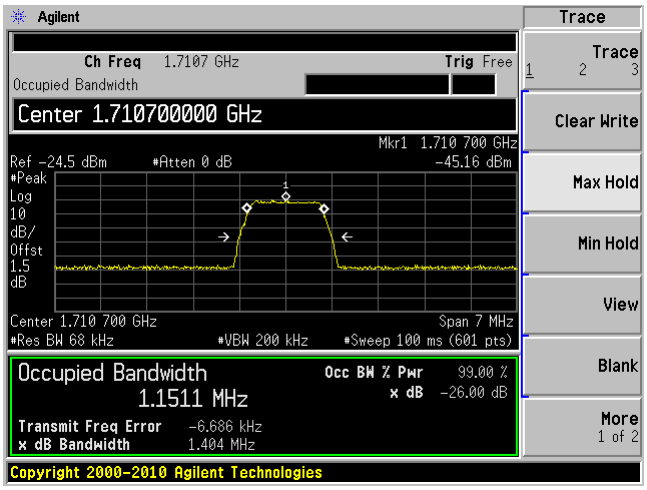


High O/P

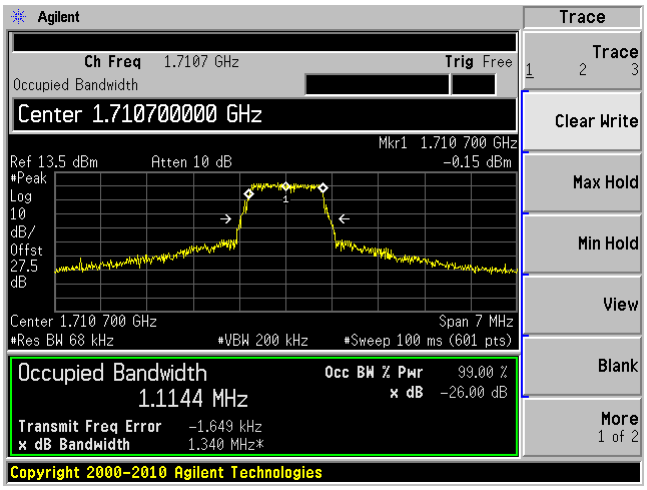


LTE Band 4, UL, 1.4 MHz, 16QAM

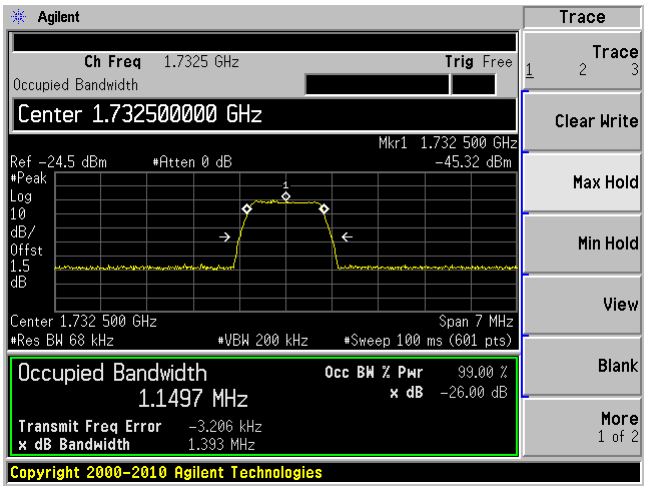
Low I/P



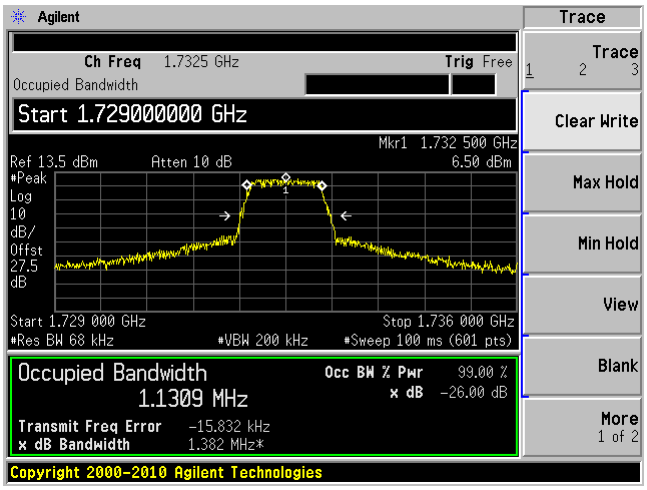
Low O/P



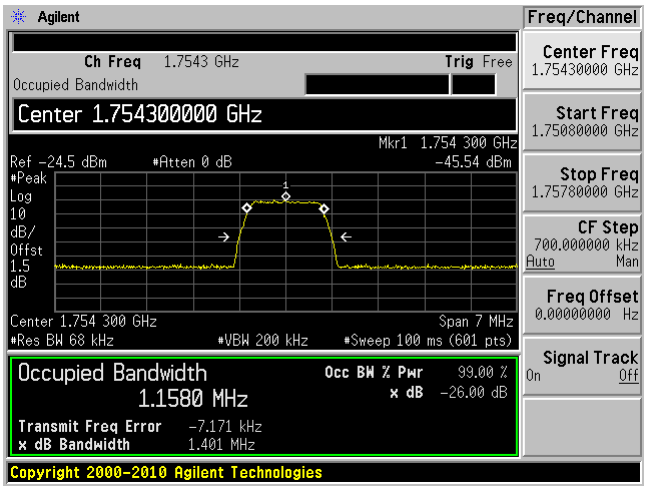
Middle I/P



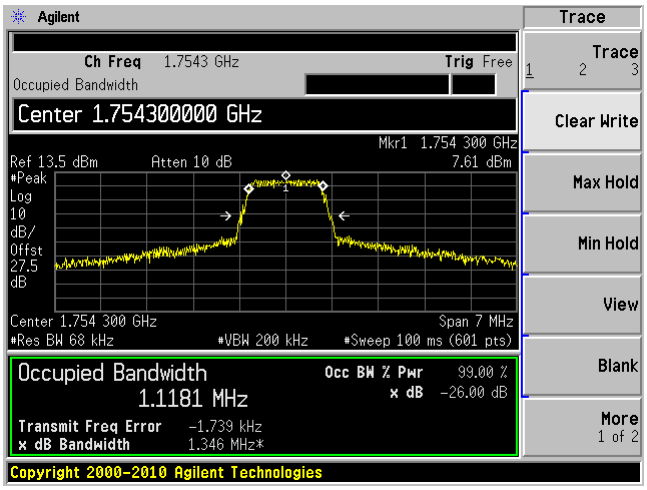
Middle O/P



High I/P

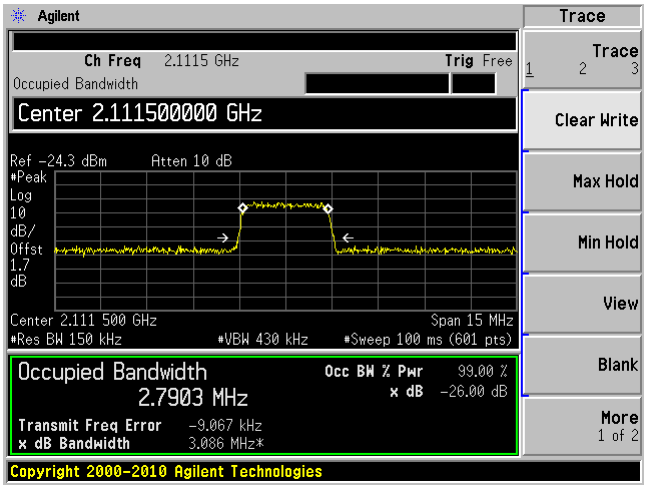


High O/P

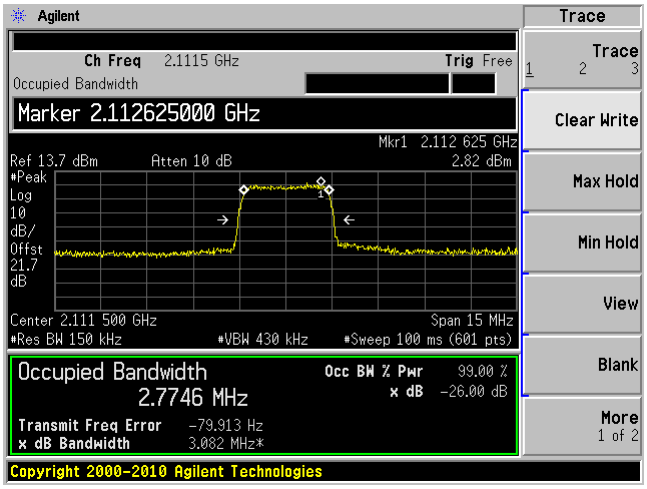


LTE Band 4, DL, 3 MHz, 16QAM

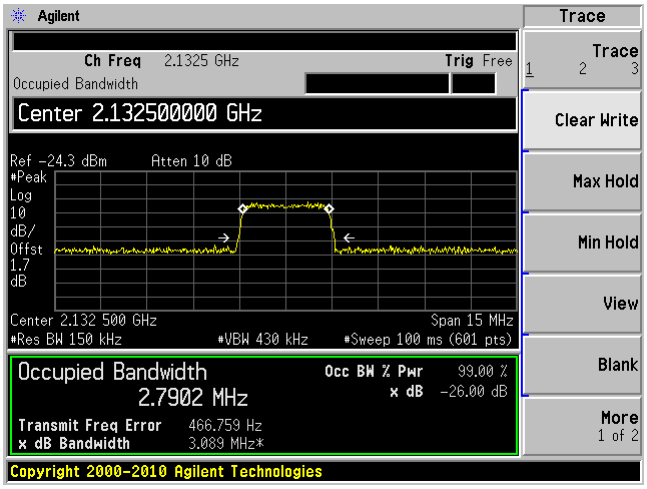
Low I/P



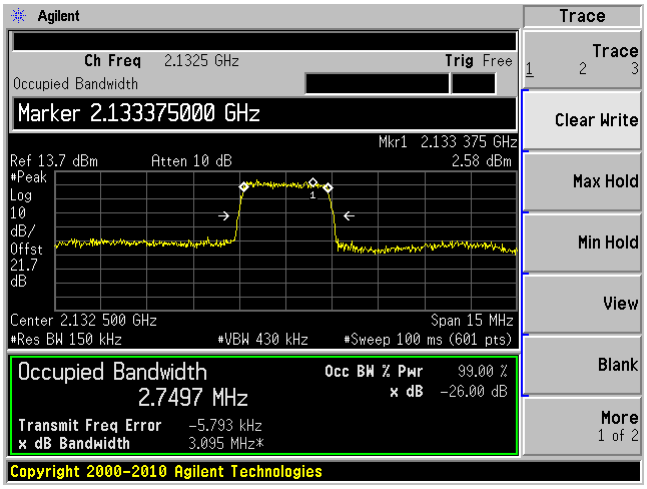
Low O/P



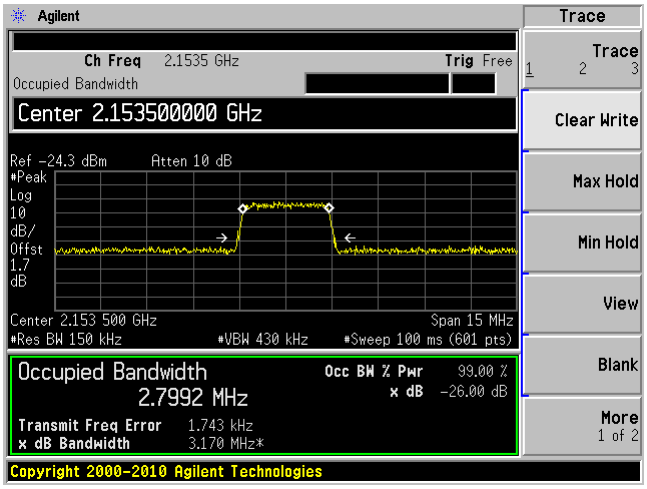
Middle I/P



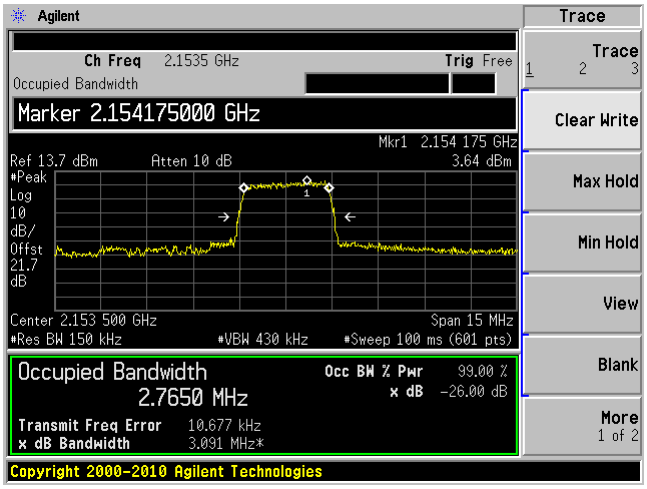
Middle O/P



High I/P

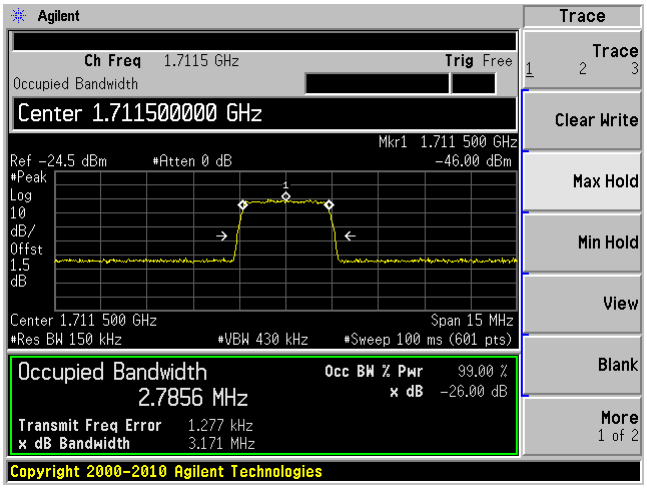


High O/P

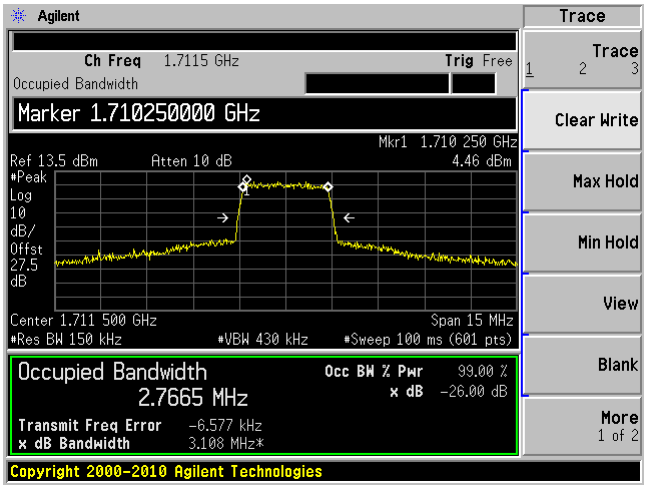


LTE Band 4, UL, 3 MHz, 16QAM

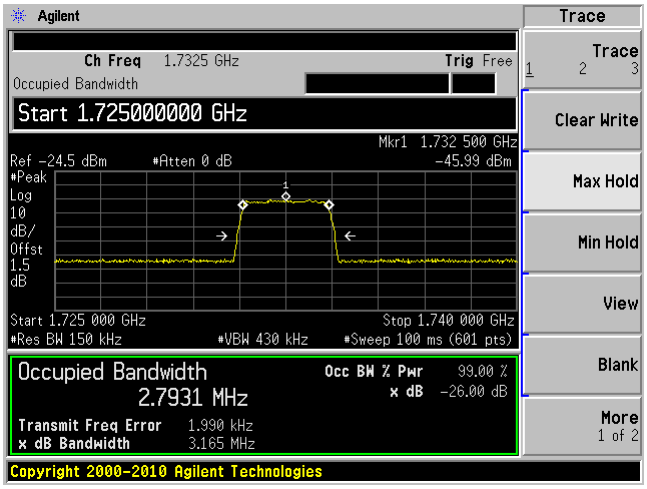
Low I/P



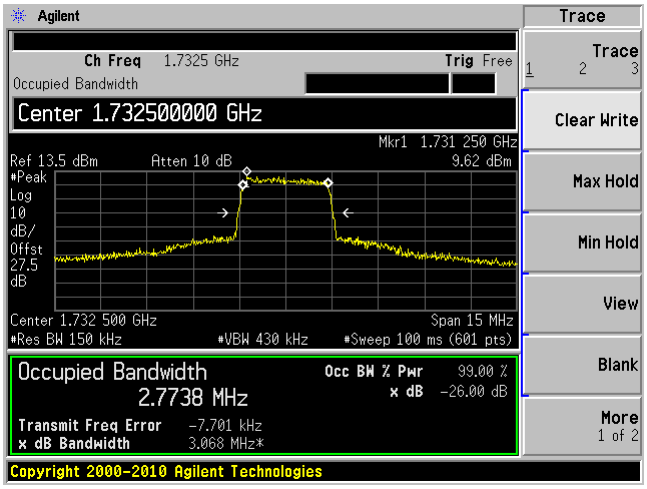
Low O/P



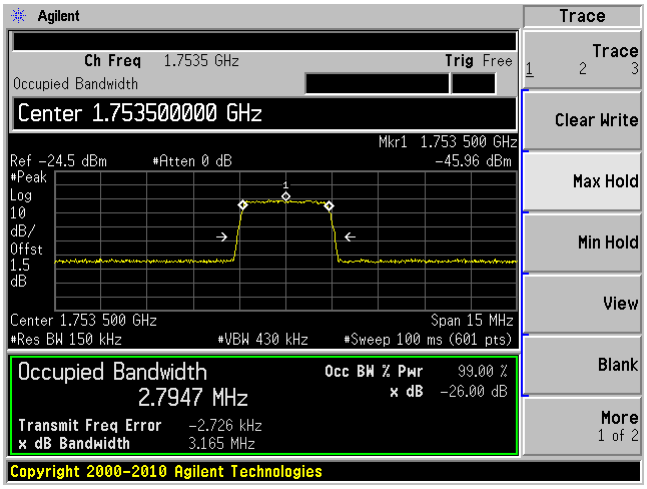
Middle I/P



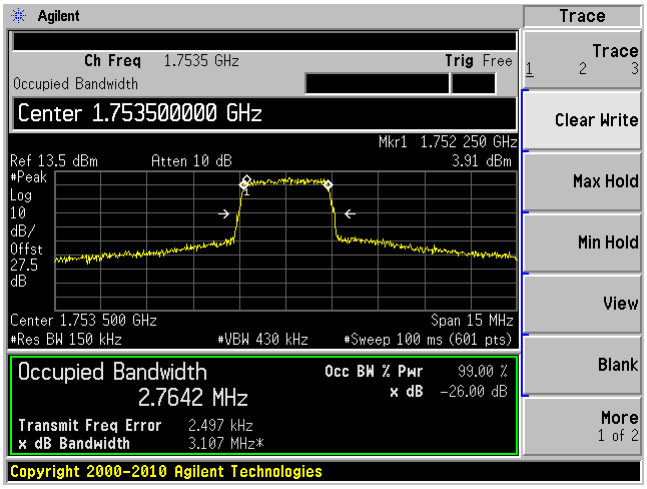
Middle O/P



High I/P

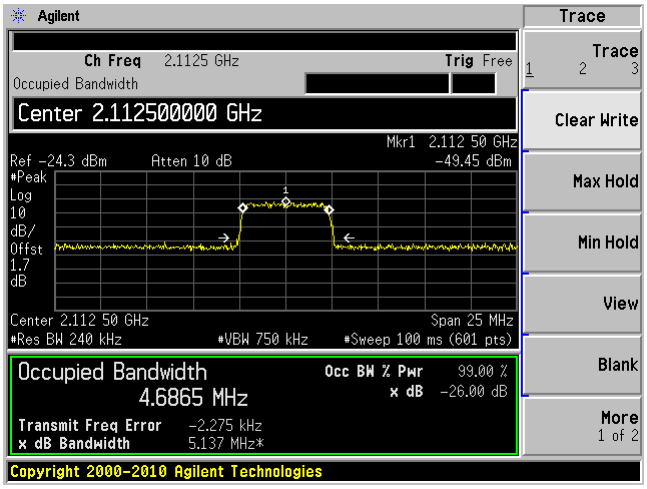


High O/P

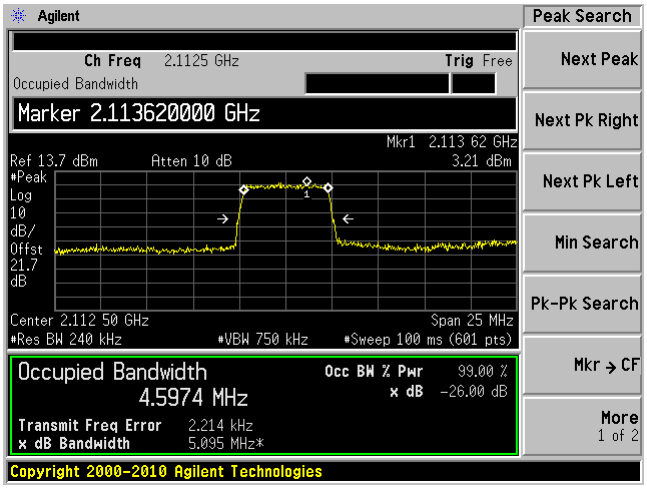


LTE Band 4, DL, 5 MHz, 16QAM

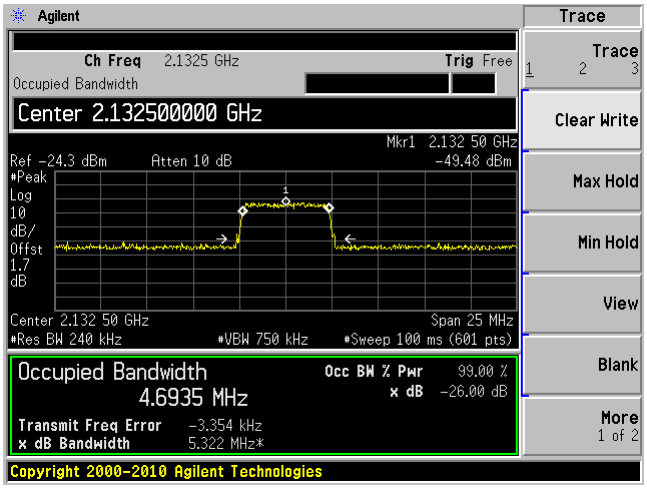
Low I/P



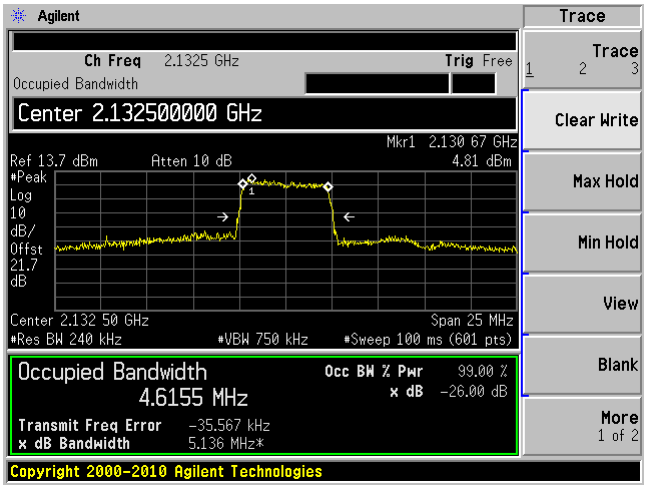
Low O/P



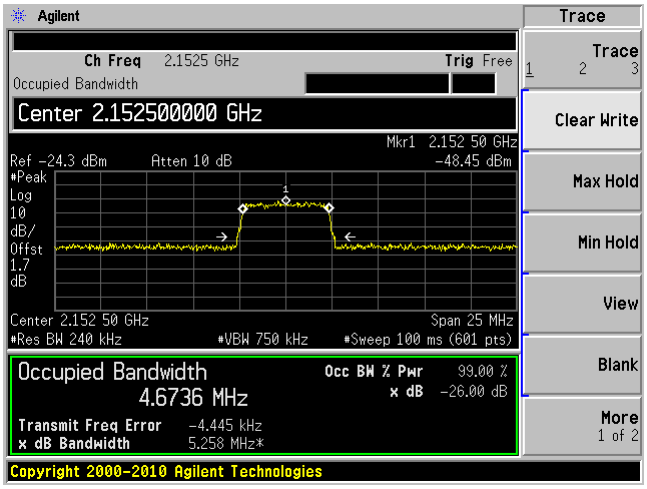
Middle I/P



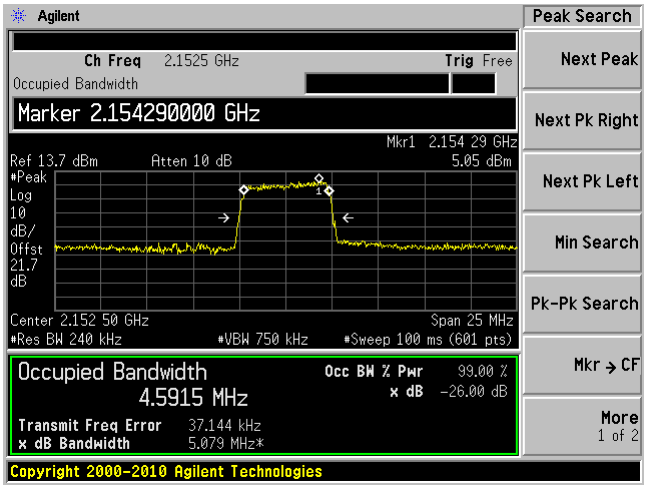
Middle O/P



High I/P

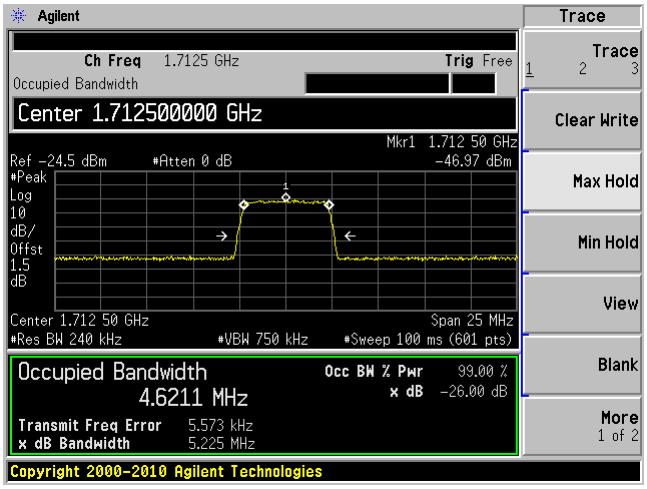


High O/P

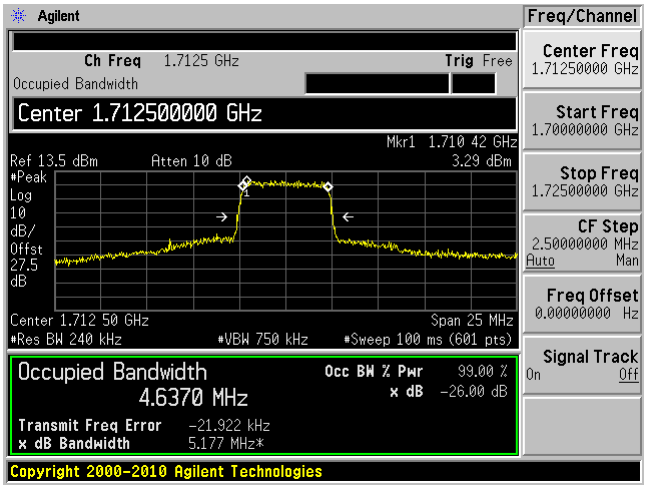


LTE Band 4, UL, 5 MHz, 16QAM

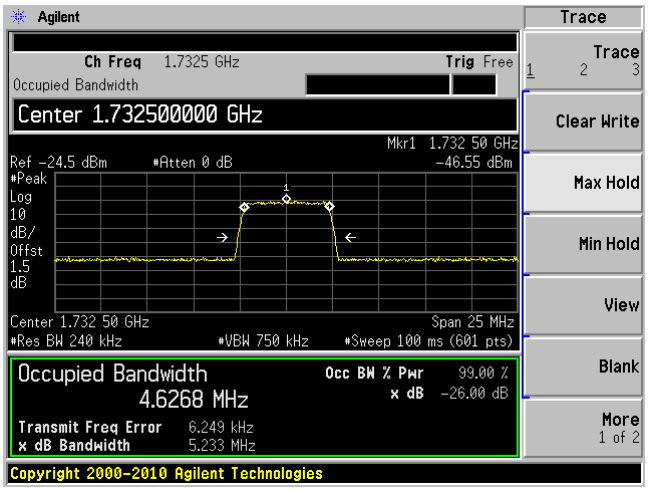
Low I/P



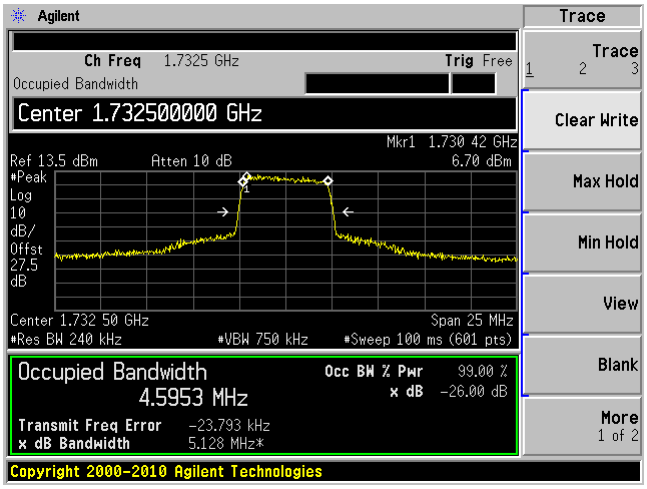
Low O/P



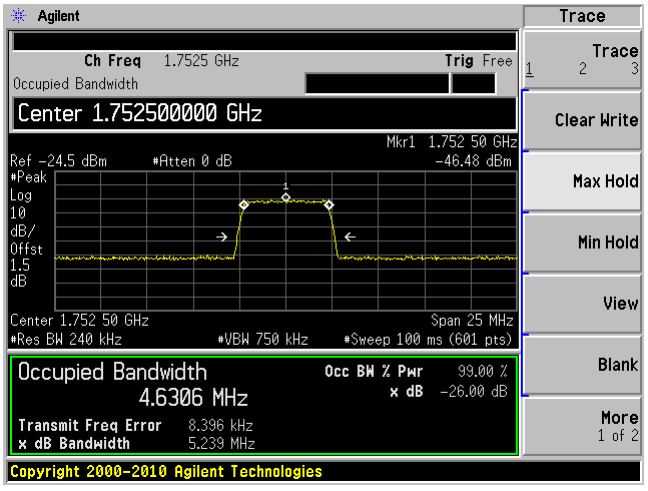
Middle I/P



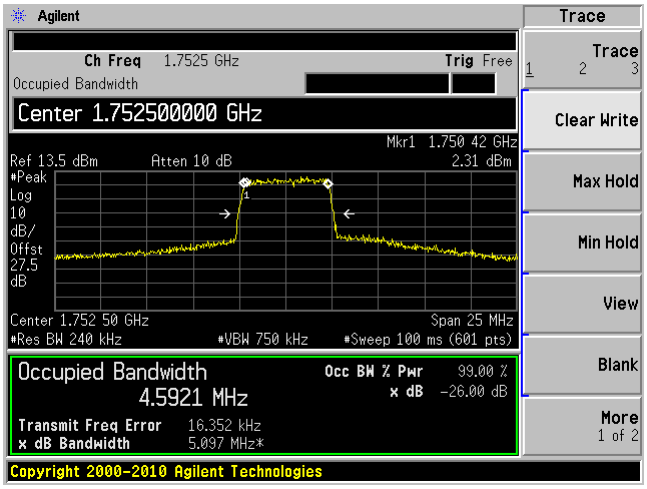
Middle O/P



High I/P

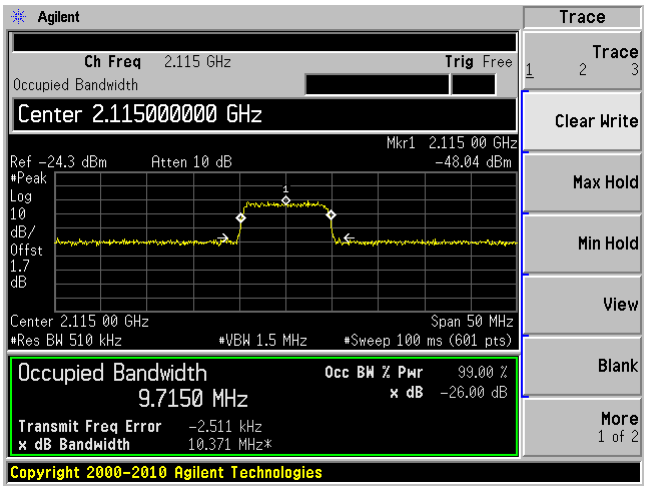


High O/P

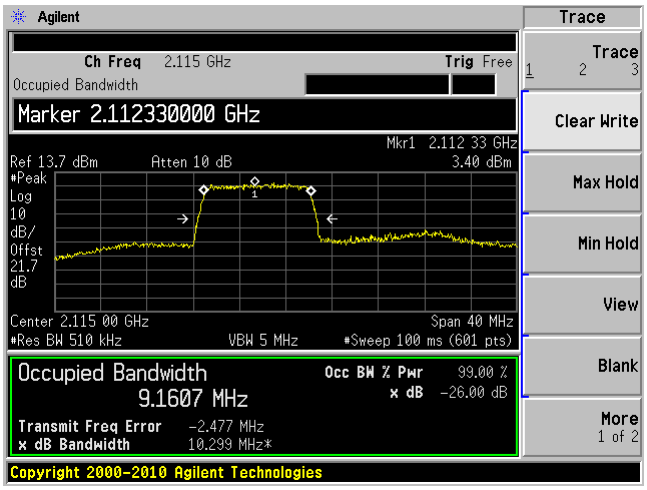


LTE Band 4, DL, 10 MHz, 16QAM

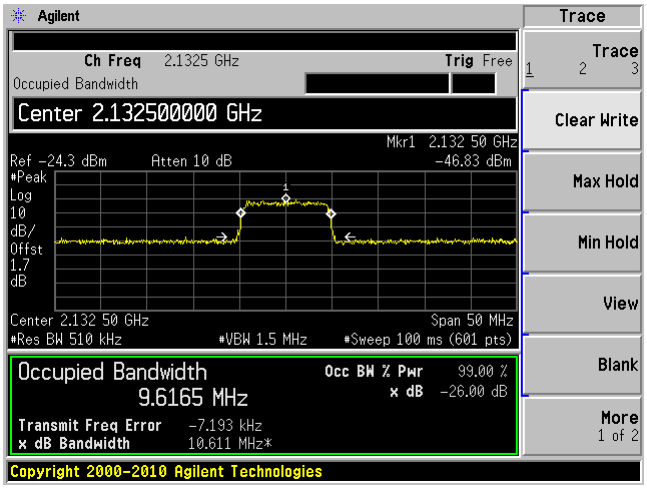
Low I/P



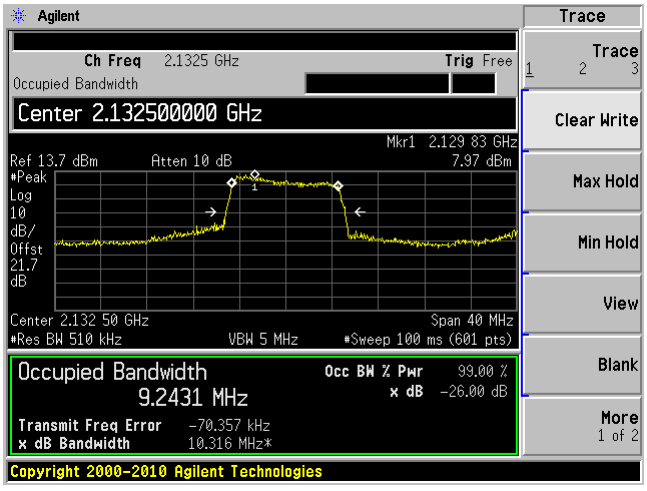
Low O/P



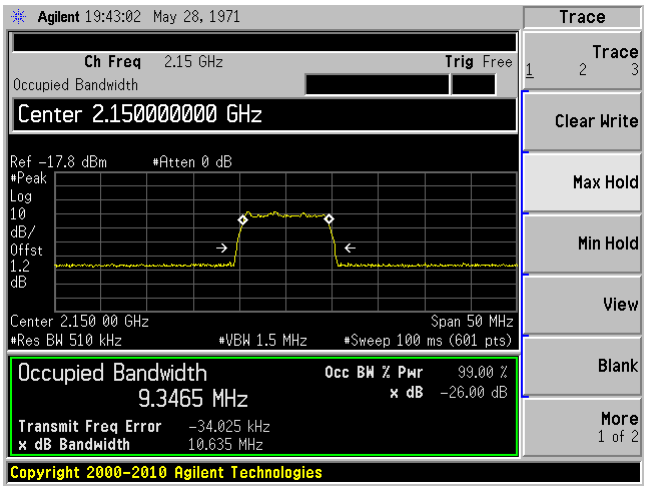
Middle I/P



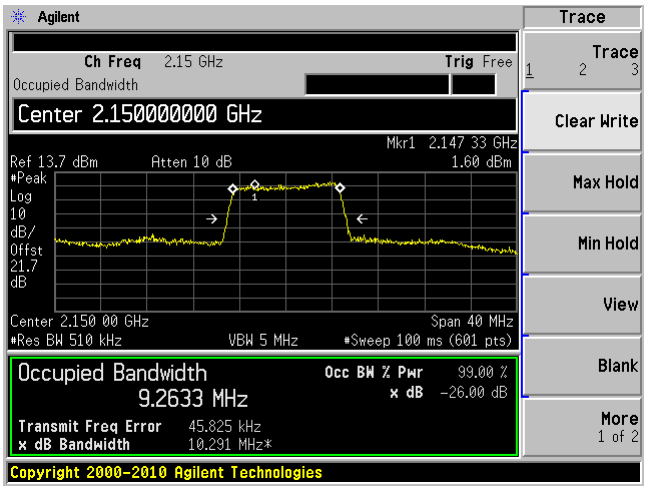
Middle O/P



High I/P

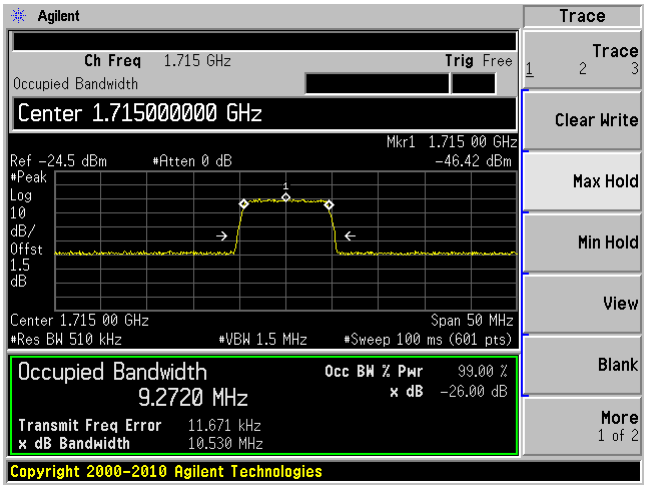


High O/P

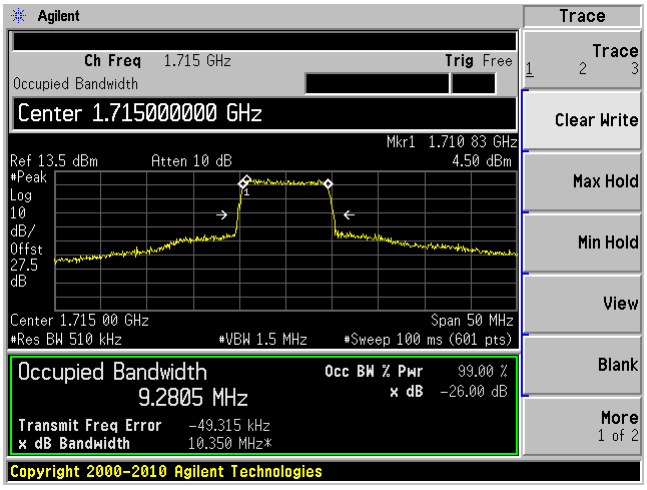


LTE Band 4, UL, 10 MHz, 16QAM

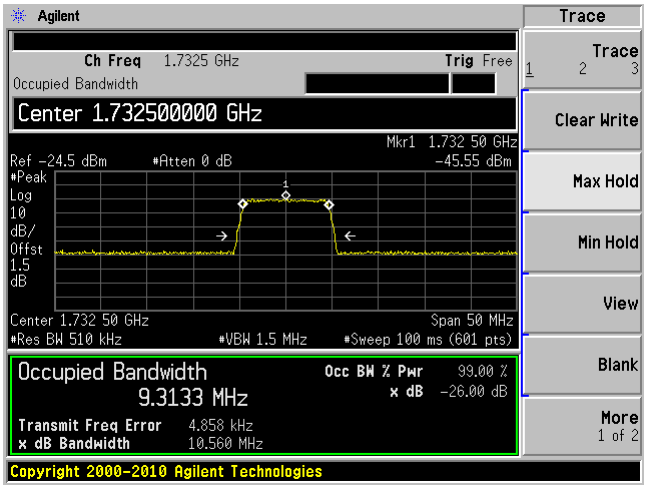
Low I/P



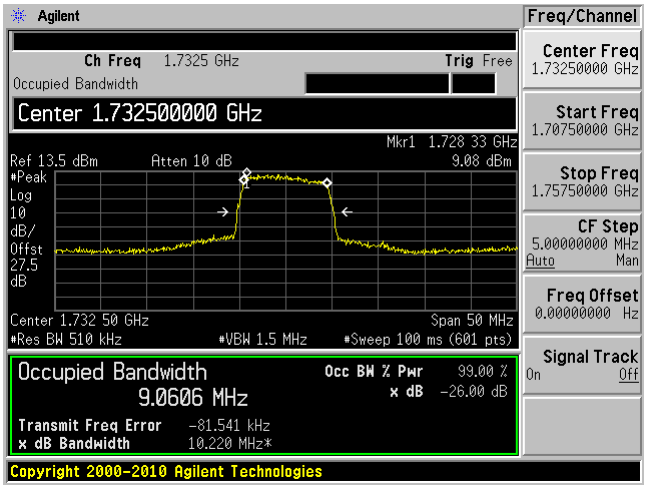
Low O/P



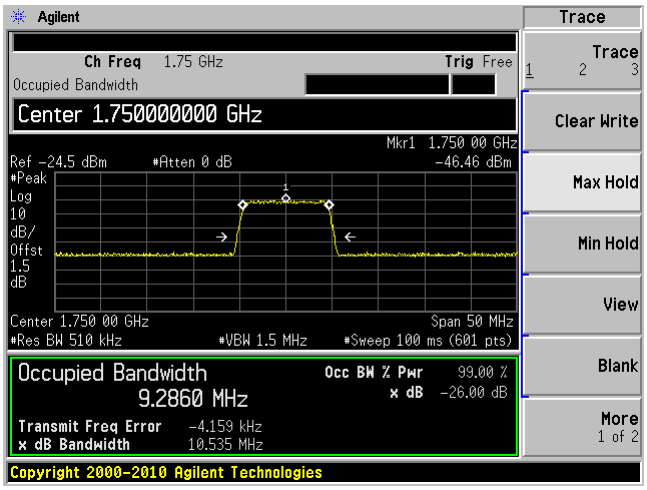
Middle I/P



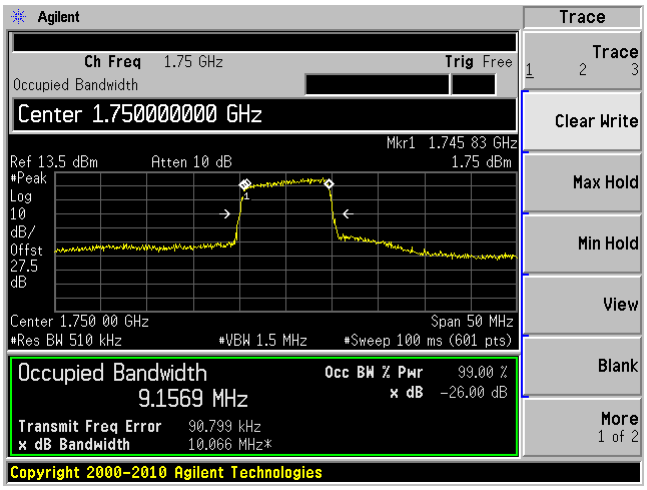
Middle O/P



High I/P

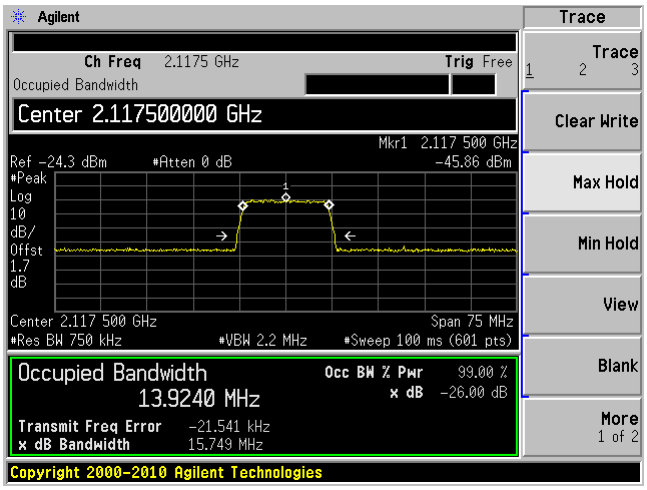


High O/P

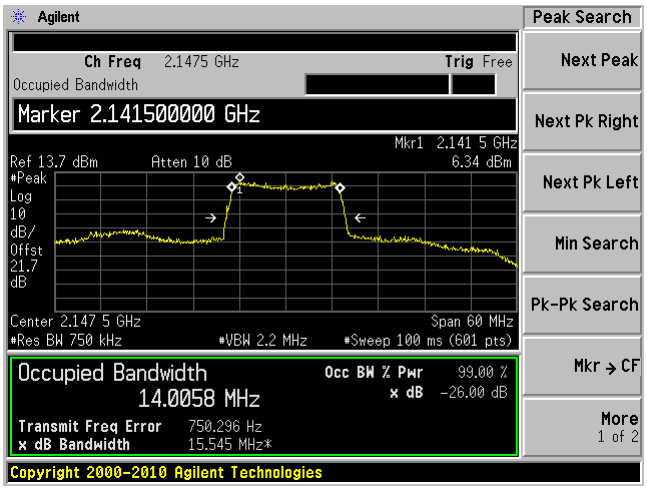


LTE Band 4, DL, 15 MHz, 16QAM

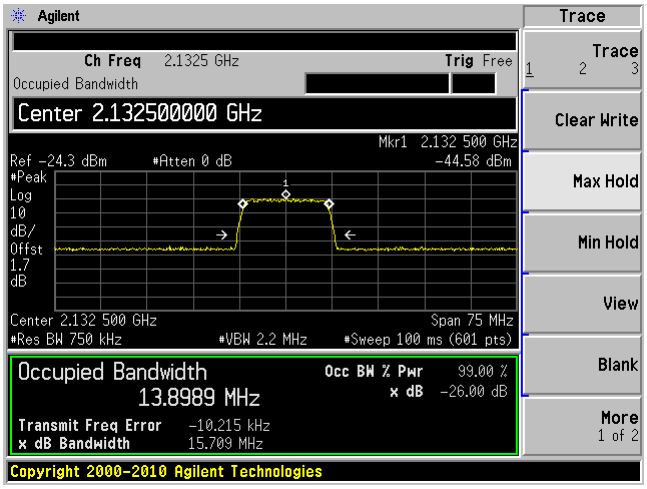
Low I/P



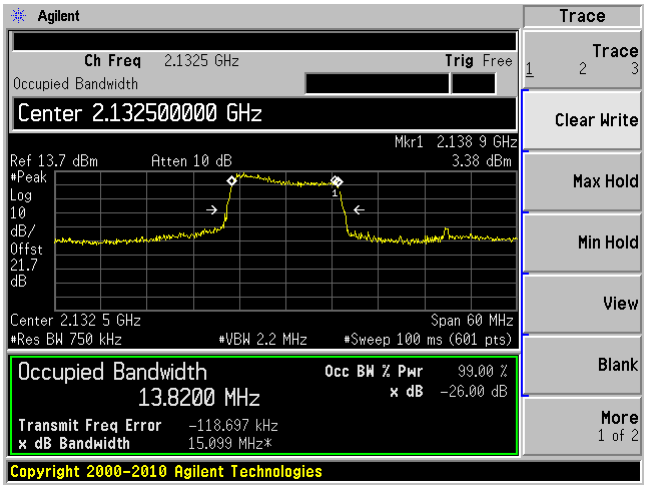
Low O/P



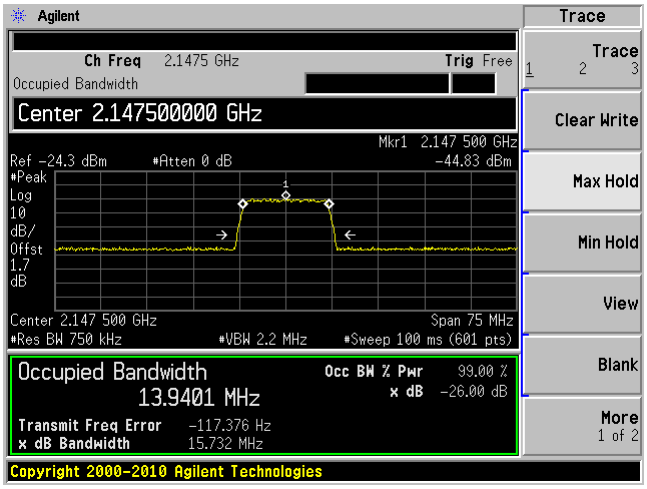
Middle I/P



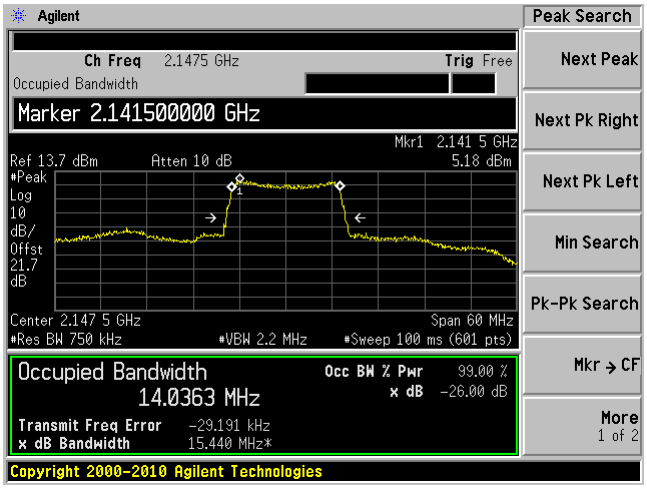
Middle O/P



High I/P

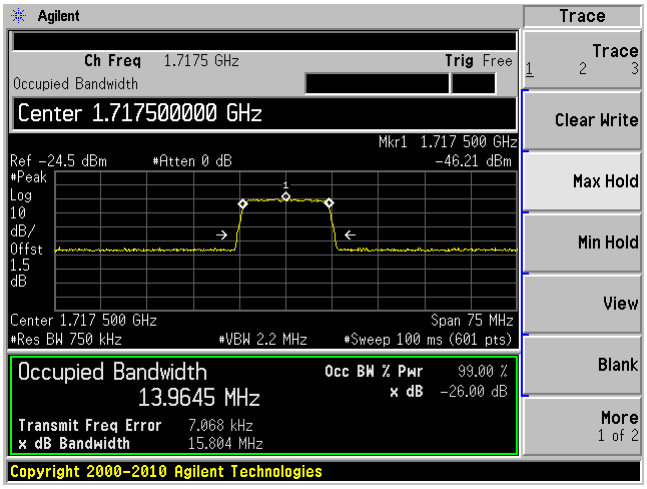


High O/P

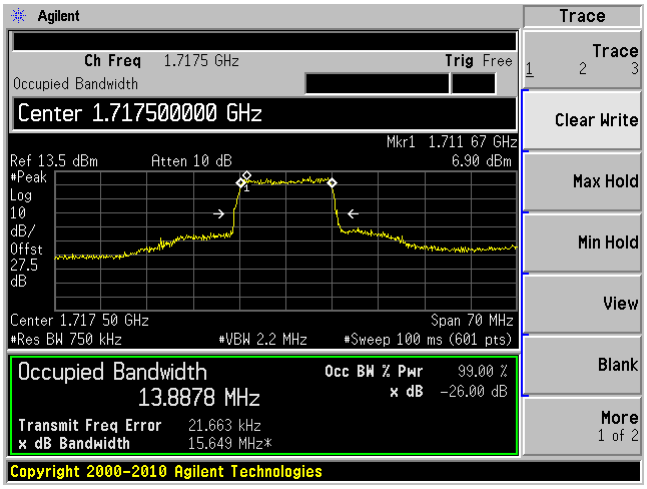


LTE Band 4, UL, 15 MHz, 16QAM

Low I/P



Low O/P



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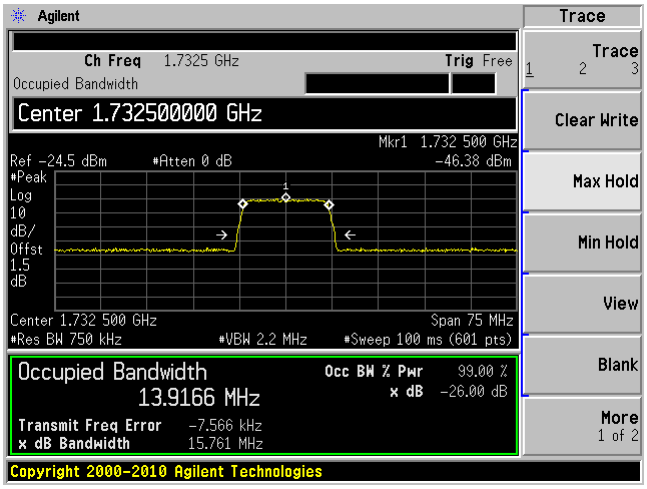
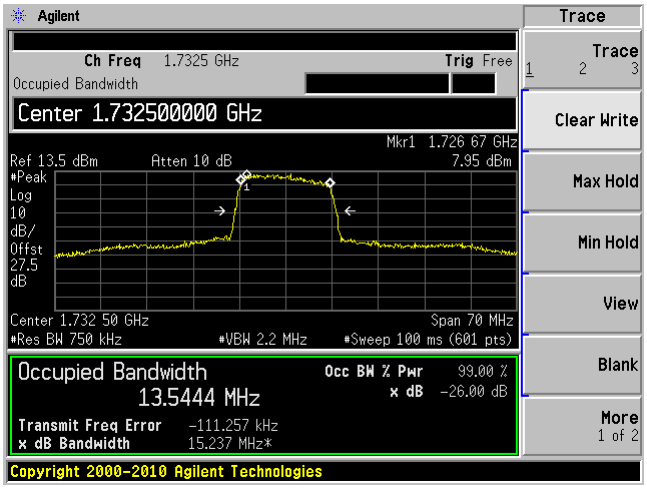
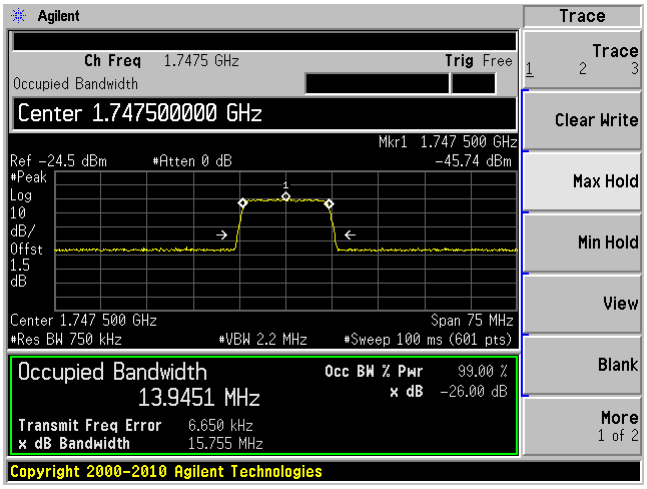
Middle I/P



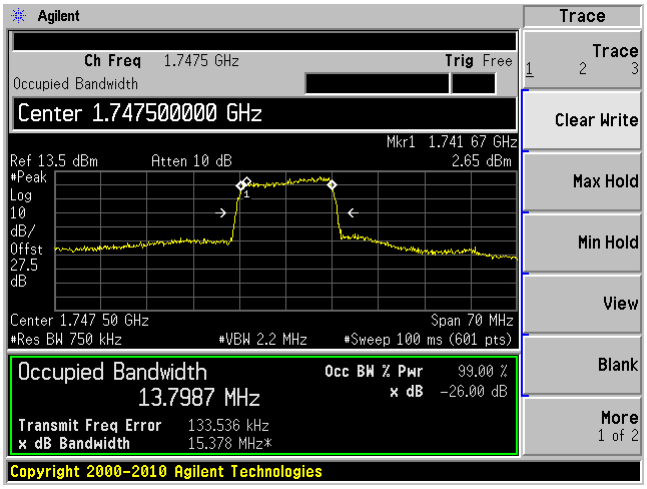
Middle O/P



High I/P

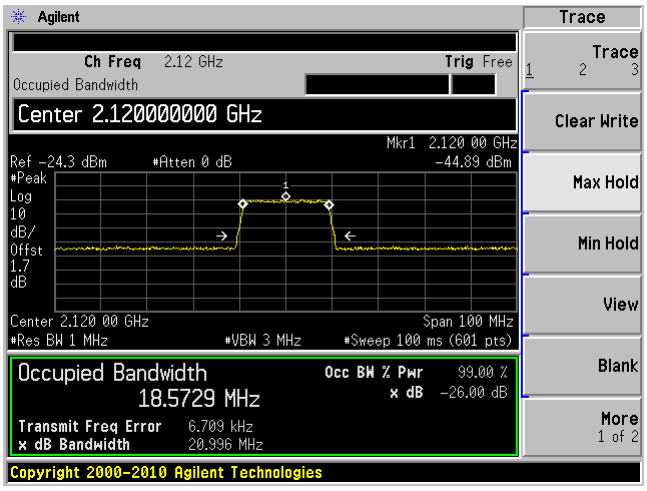


High O/P

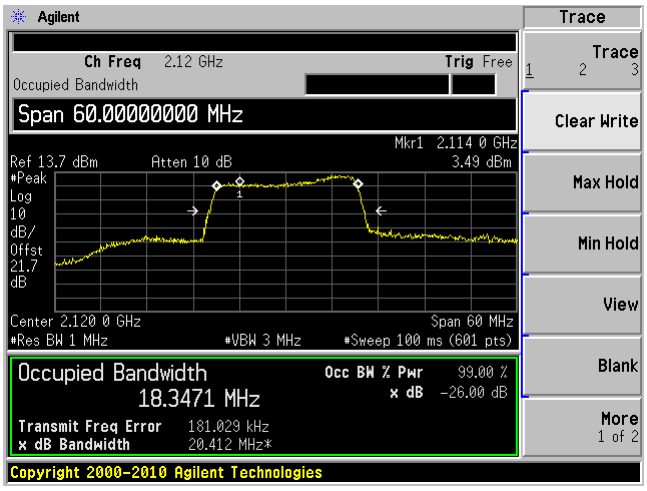


LTE Band 4, DL, 20 MHz, 16QAM

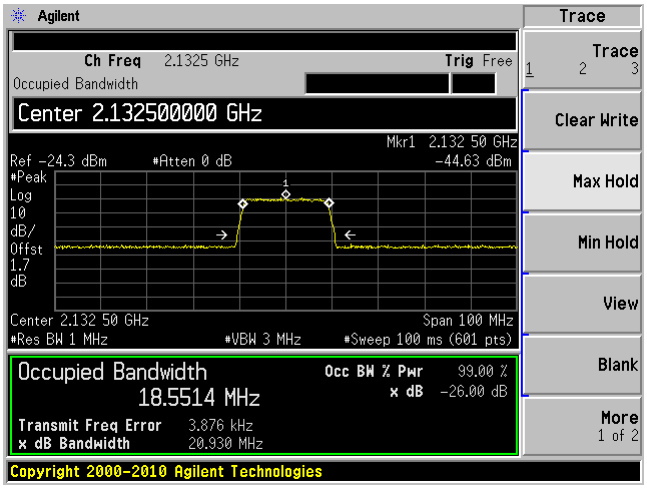
Low I/P



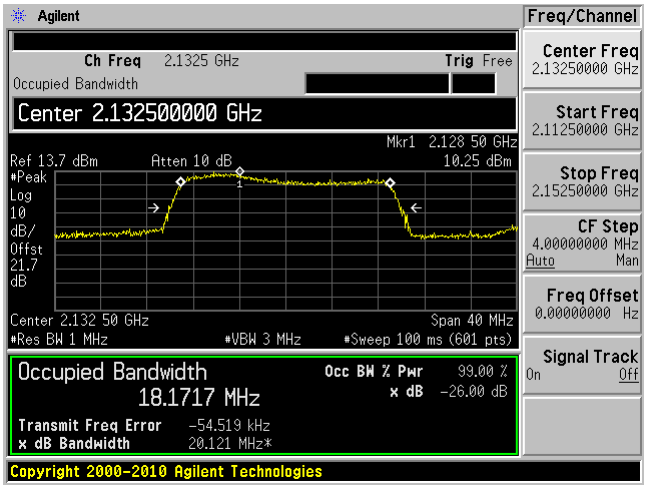
Low O/P



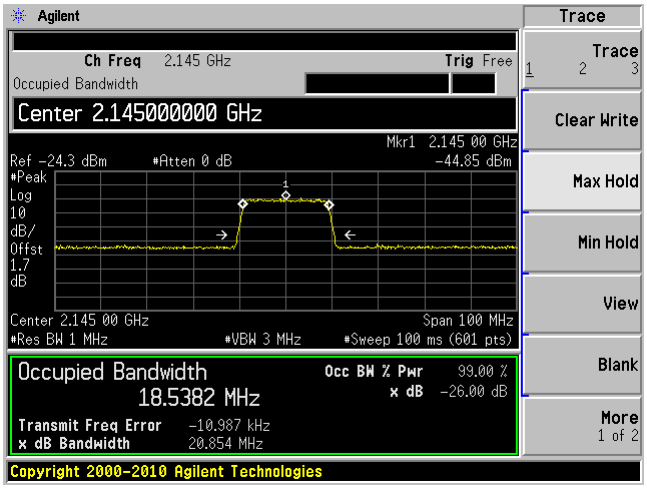
Middle I/P



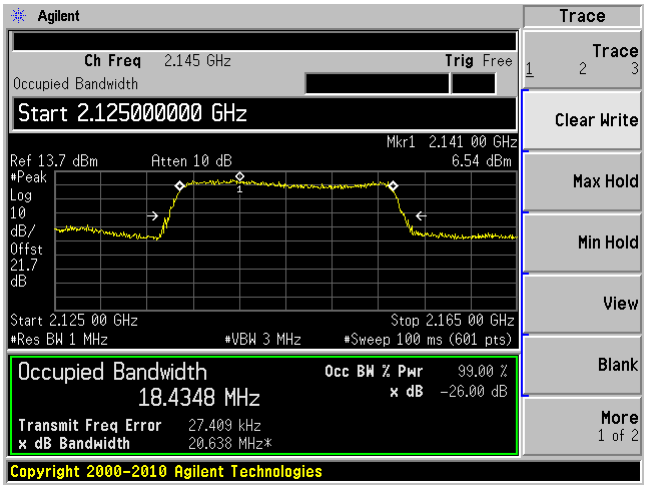
Middle O/P



High I/P

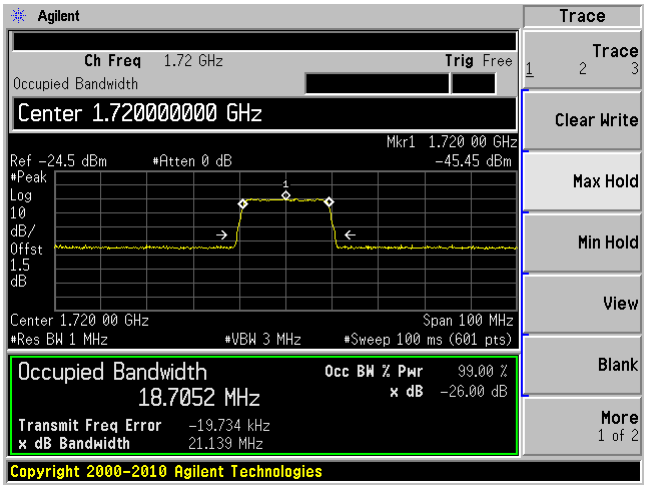


High O/P

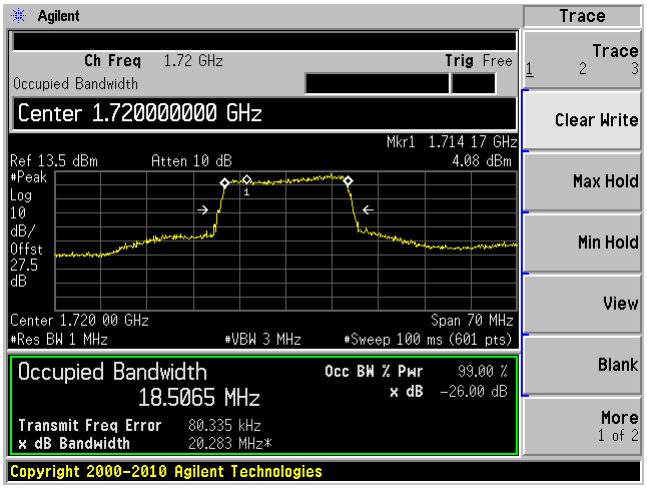


LTE Band 4, UL, 20 MHz, 16QAM

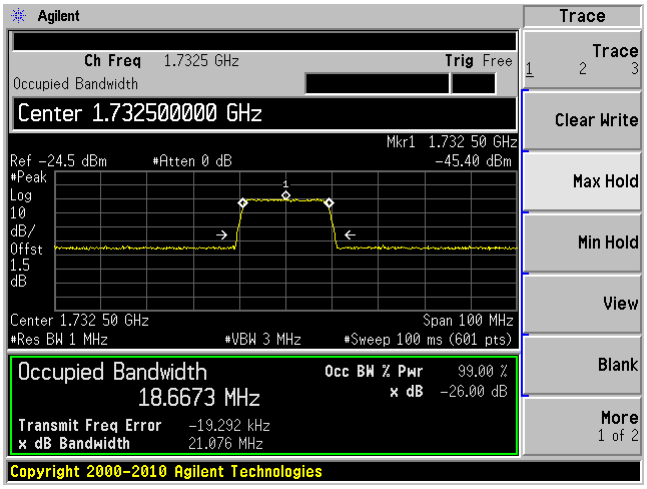
Low I/P



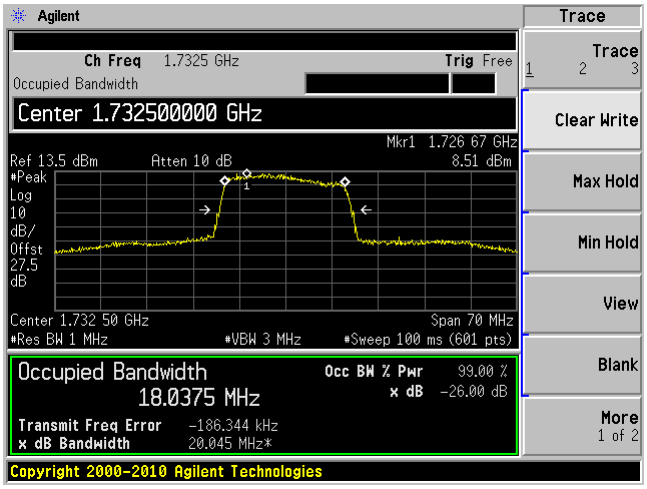
Low O/P



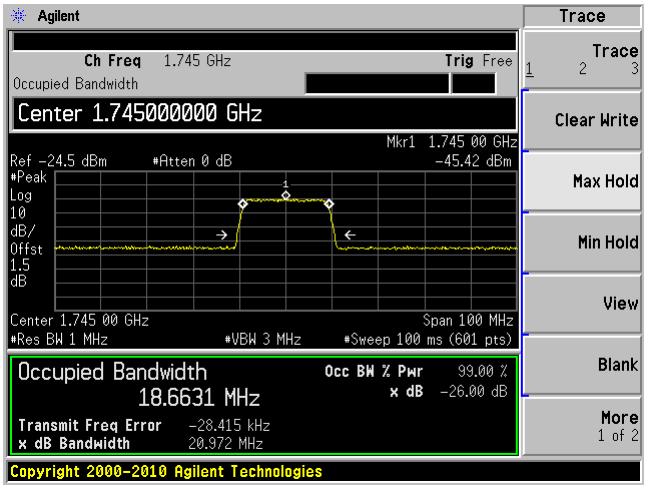
Middle I/P



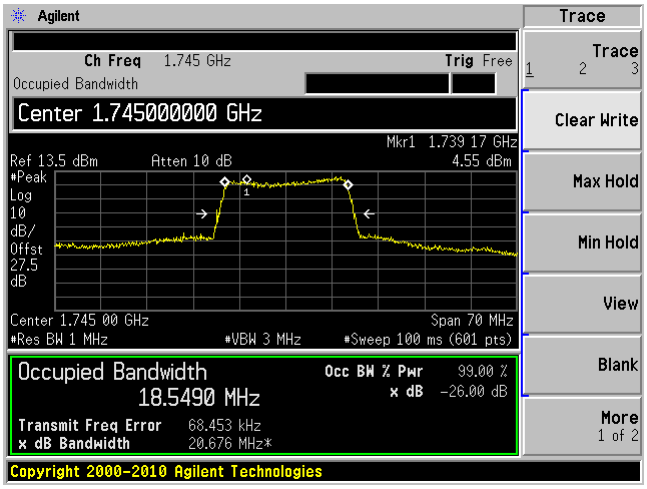
Middle O/P



High I/P

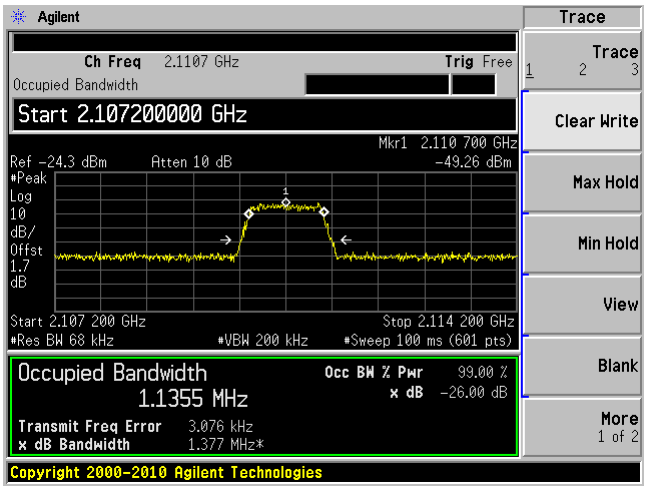


High O/P

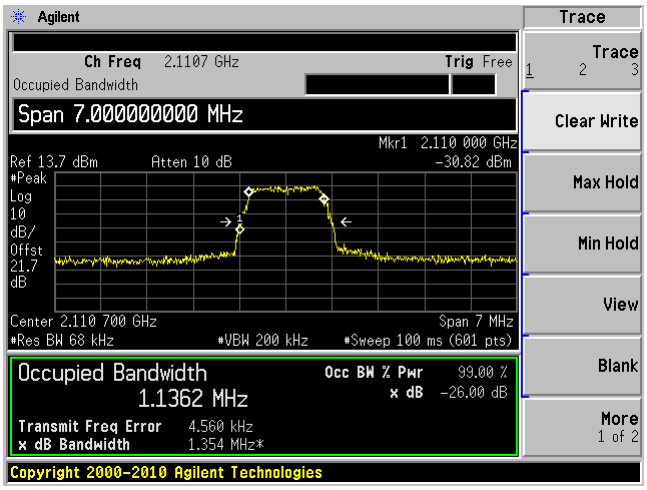


LTE Band 4, DL, 1.4 MHz, 64QAM

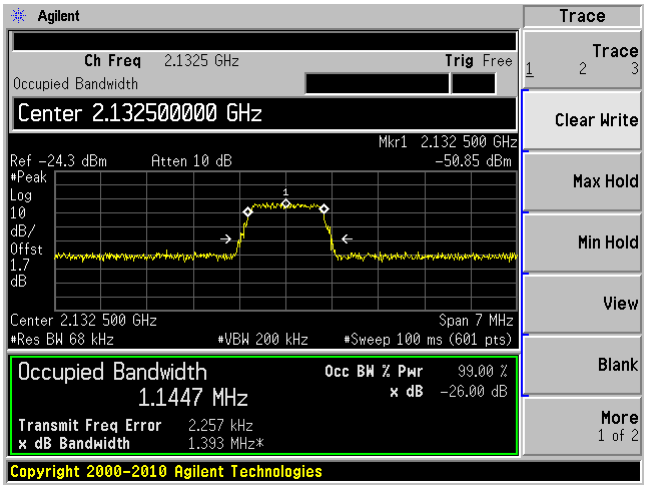
Low I/P



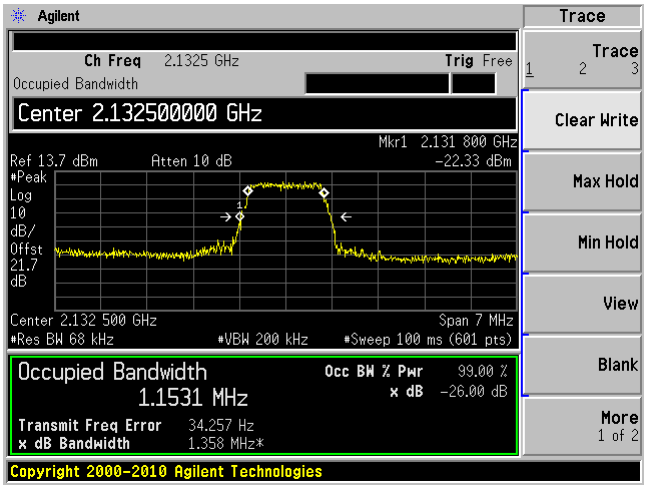
Low O/P



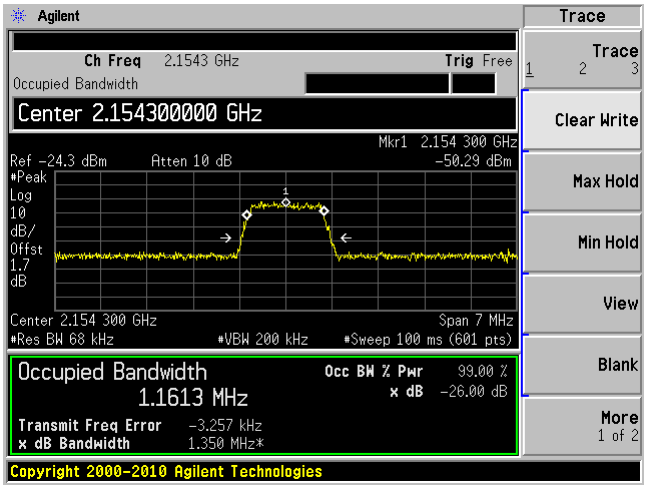
Middle I/P



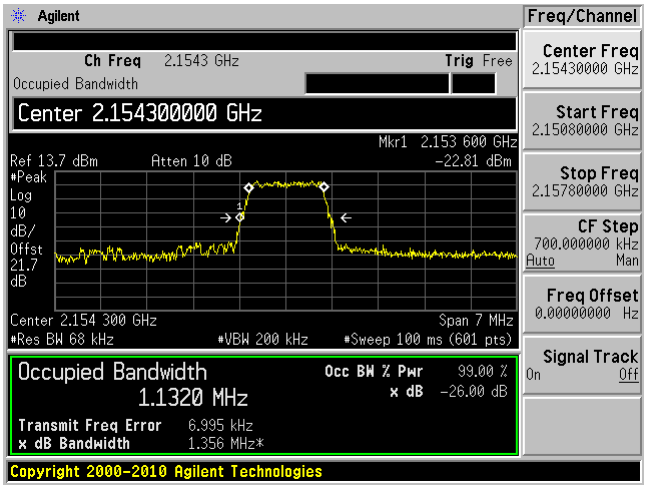
Middle O/P



High I/P

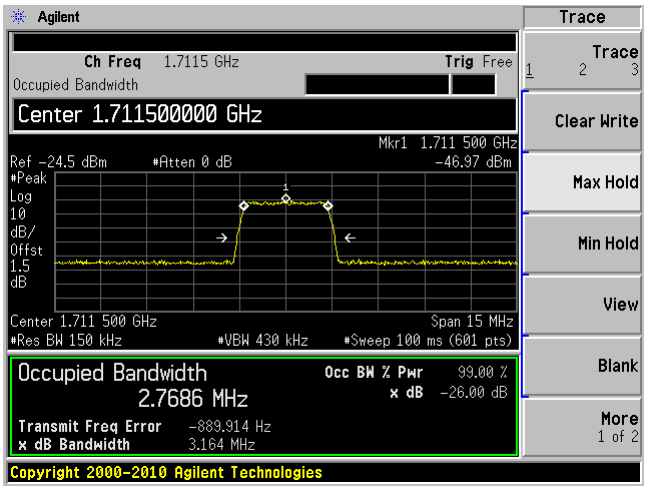


High O/P

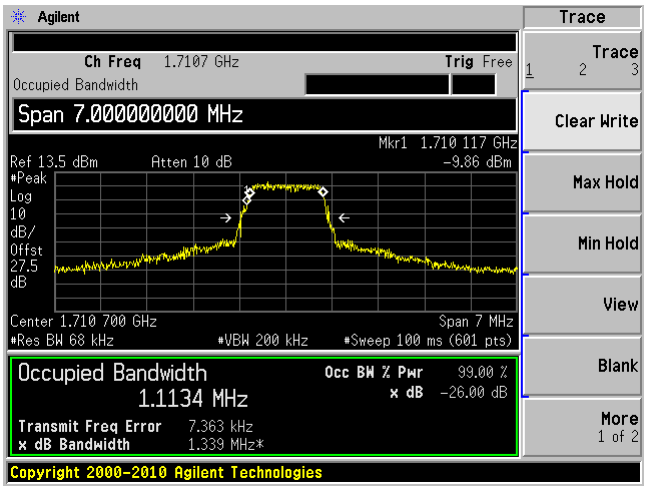


LTE Band 4, UL, 1.4 MHz, 64QAM

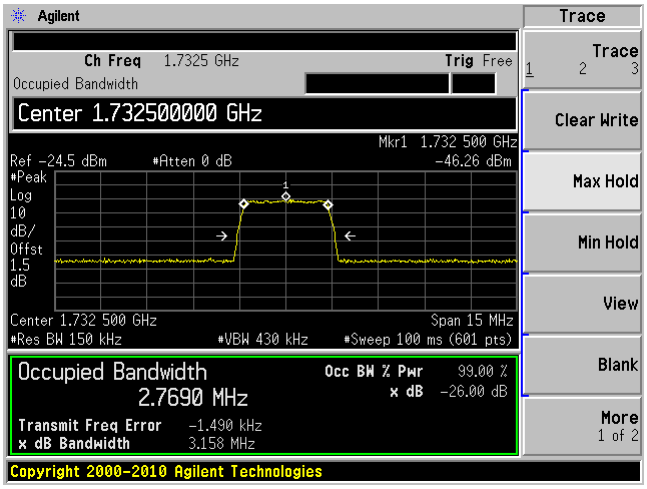
Low I/P



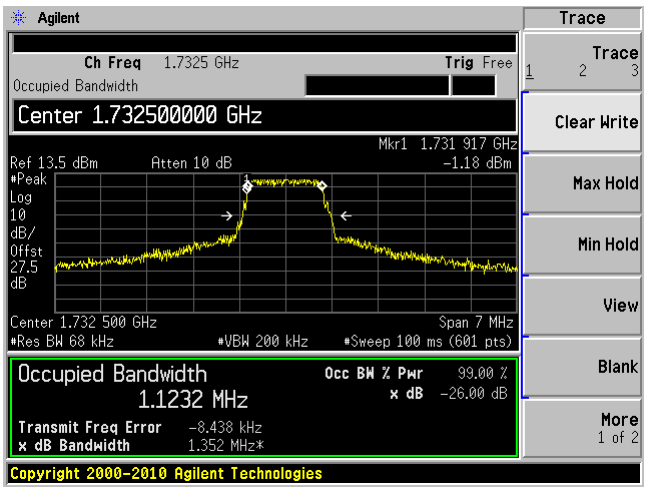
Low O/P



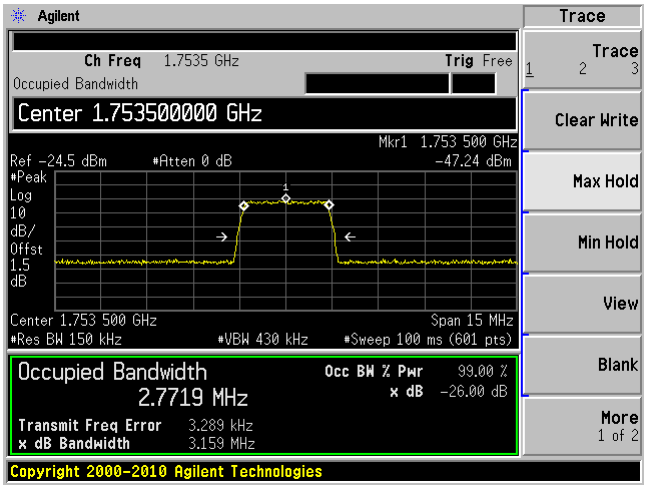
Middle I/P



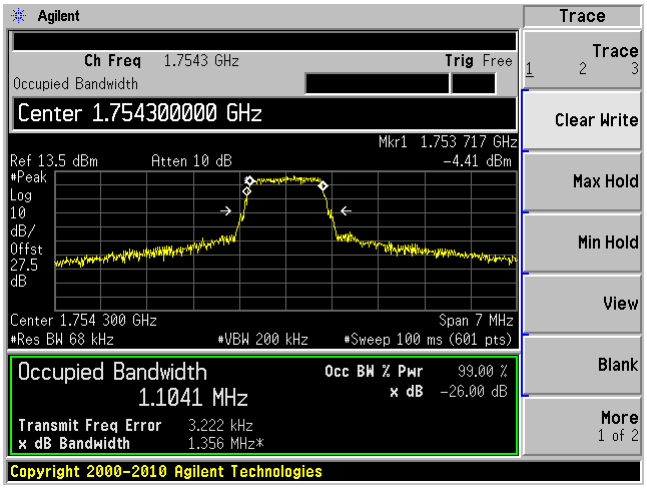
Middle O/P



High I/P

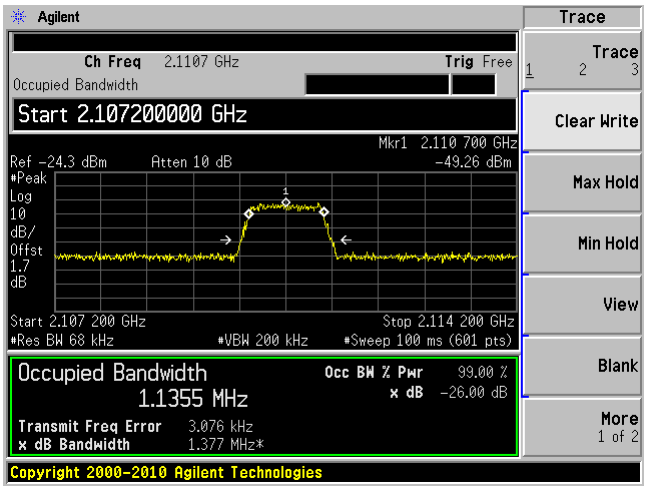


High O/P

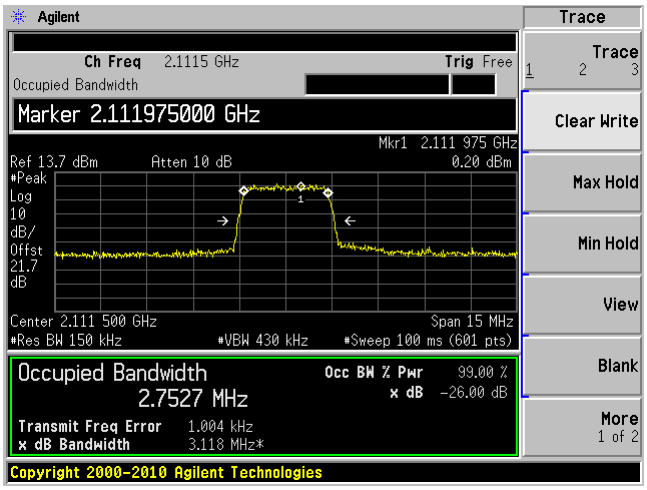


LTE Band 4, DL, 3 MHz, 64QAM

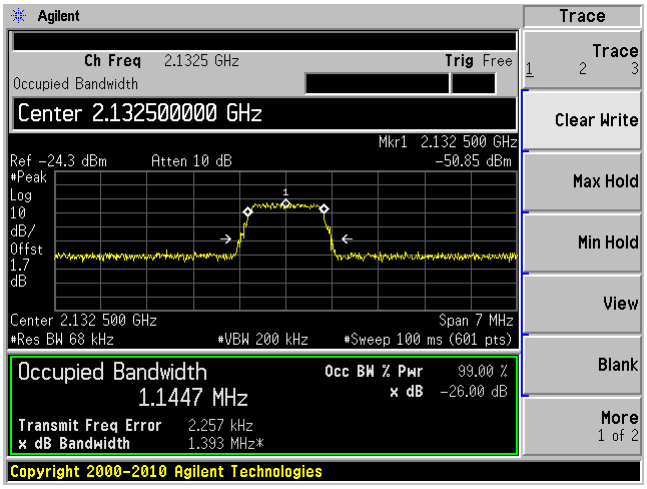
Low I/P



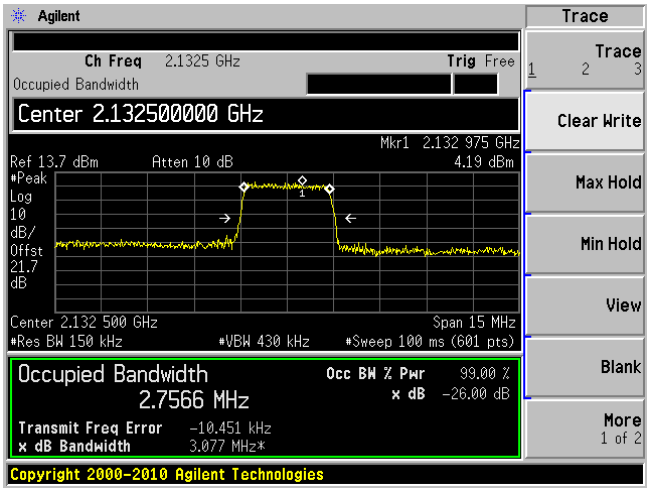
Low O/P



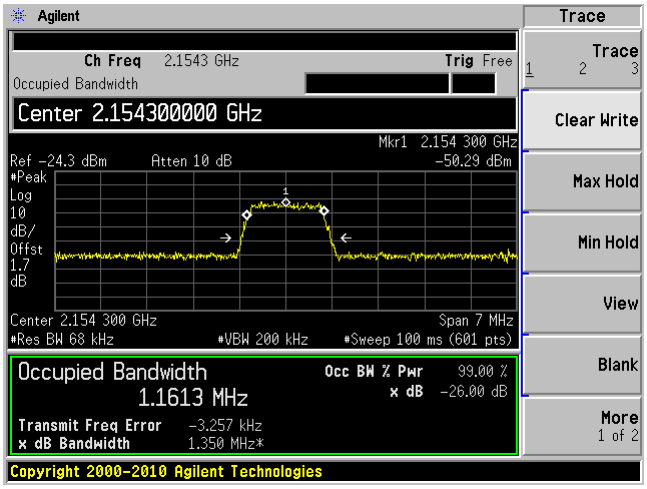
Middle I/P



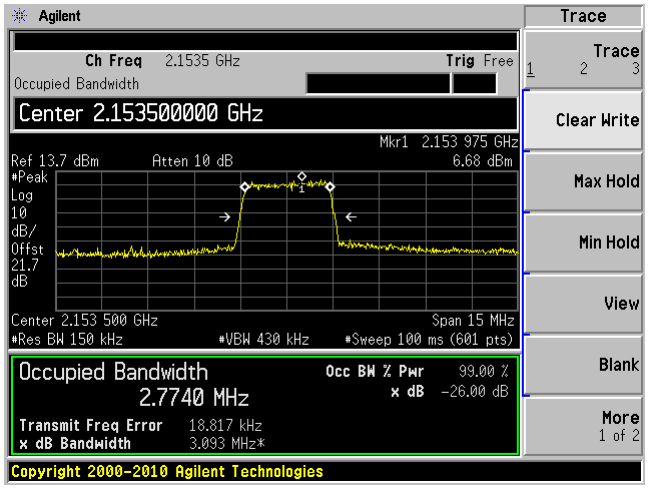
Middle O/P



High I/P

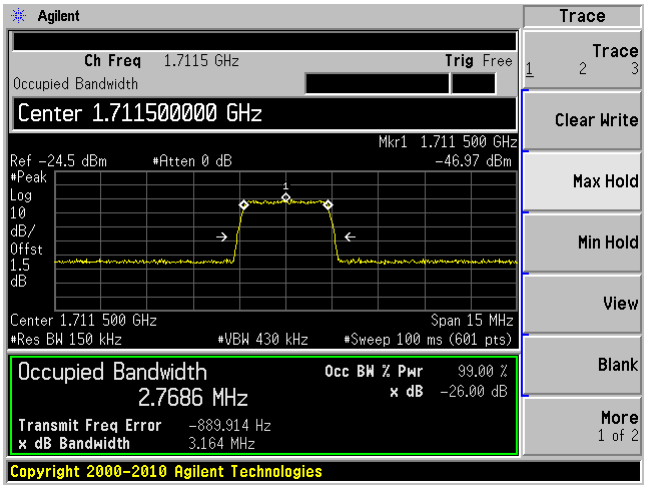


High O/P

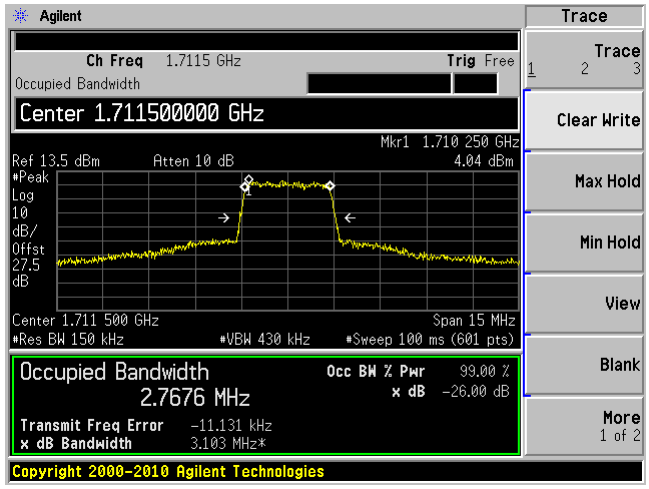


LTE Band 4, UL, 3 MHz, 64QAM

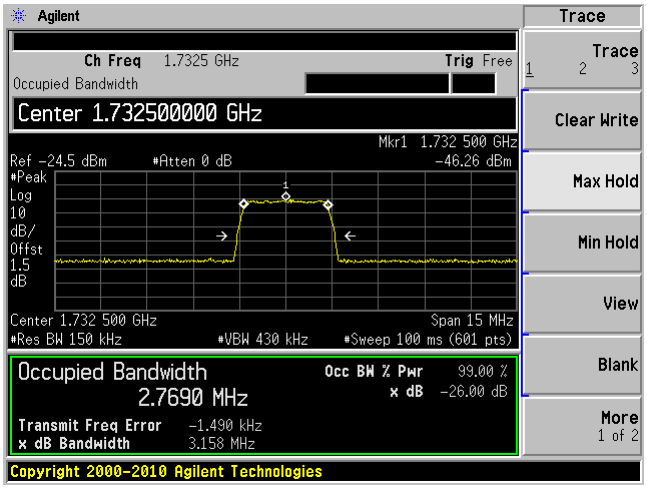
Low I/P



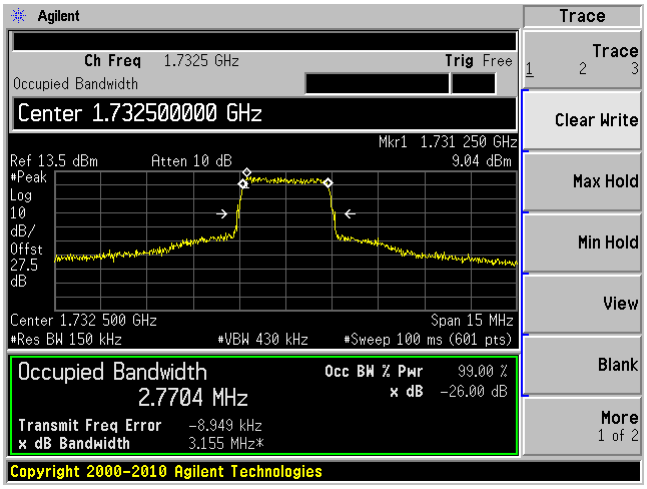
Low O/P



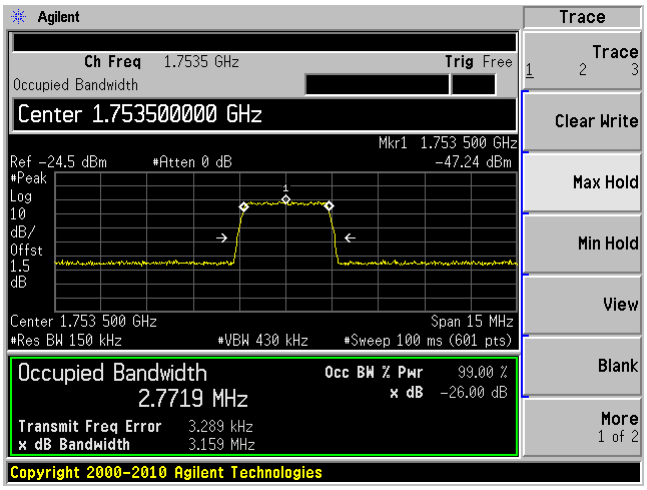
Middle I/P



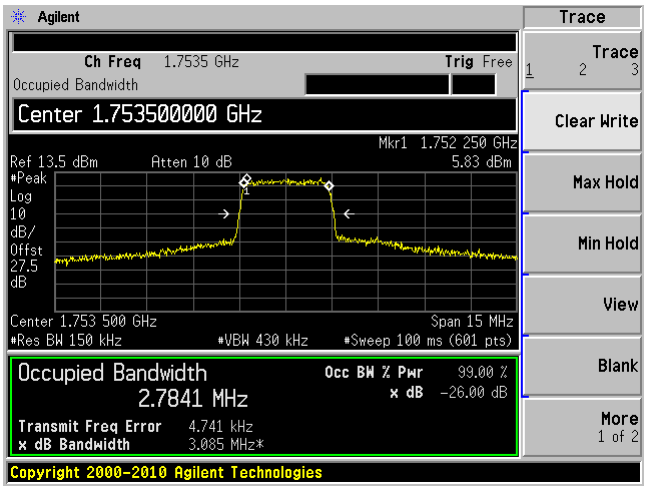
Middle O/P



High I/P

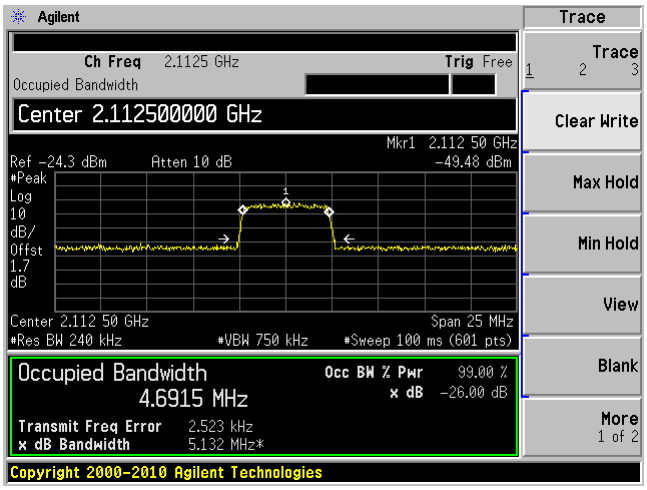


High O/P

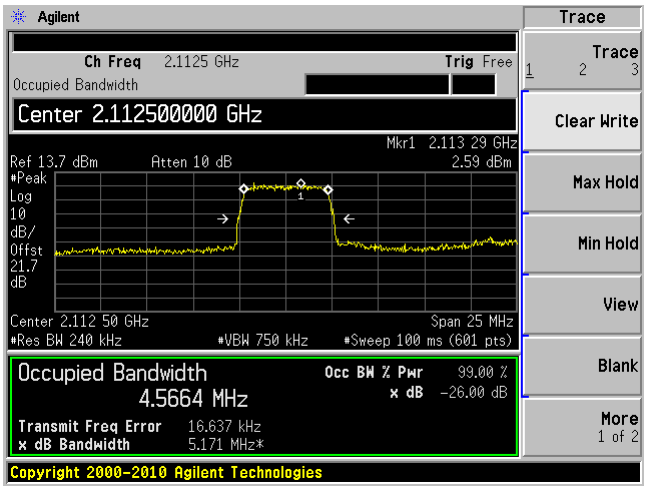


LTE Band 4, DL, 5 MHz, 64QAM

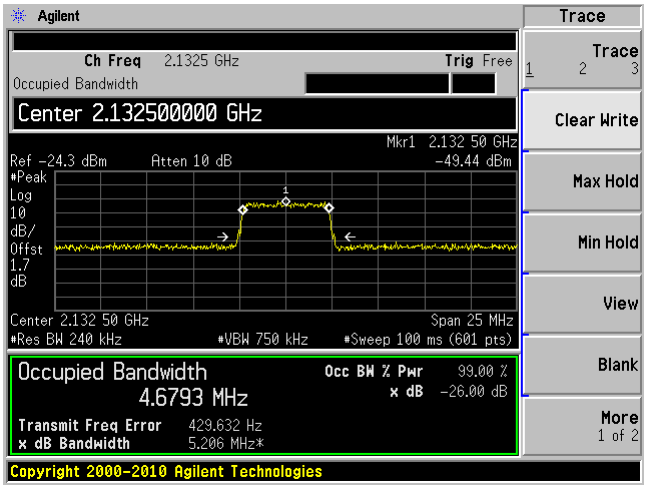
Low I/P



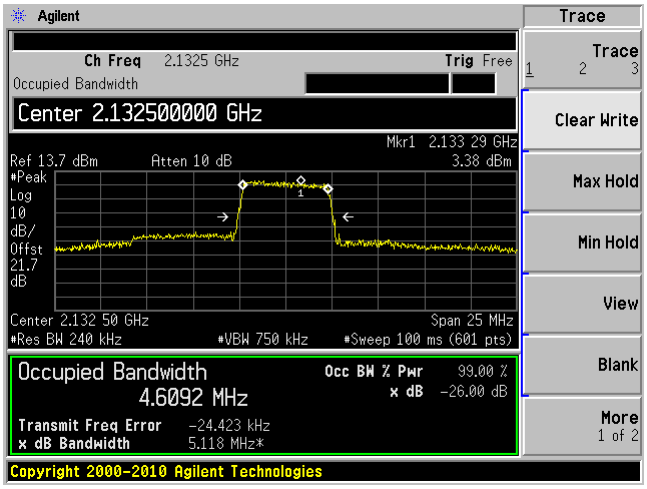
Low O/P



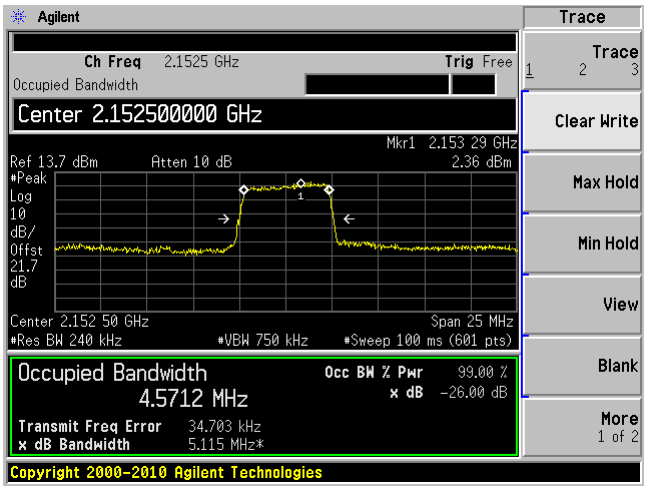
Middle I/P



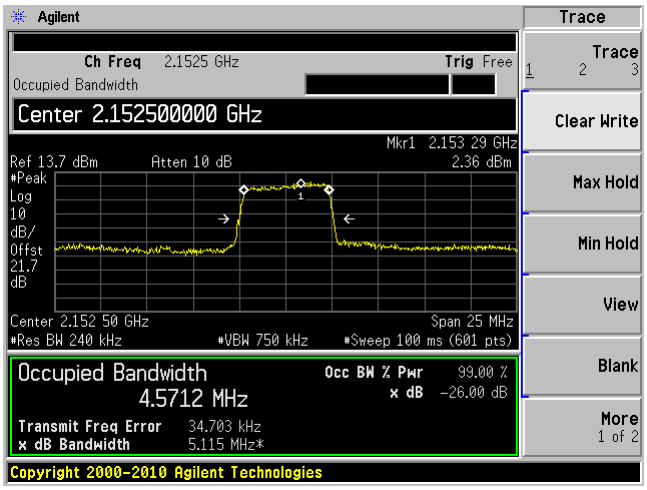
Middle O/P



High I/P

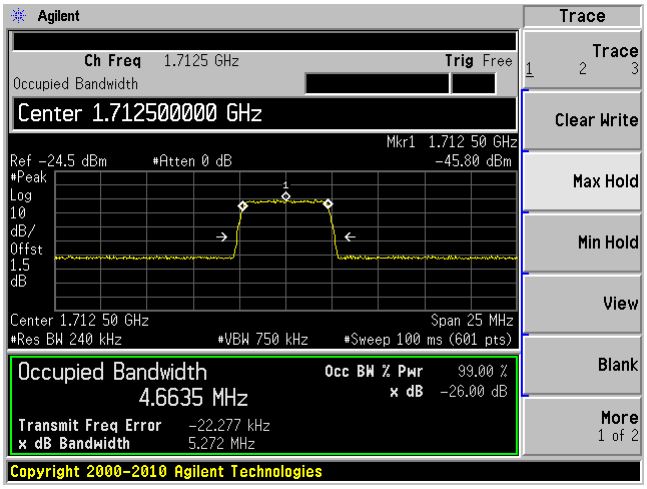


High O/P

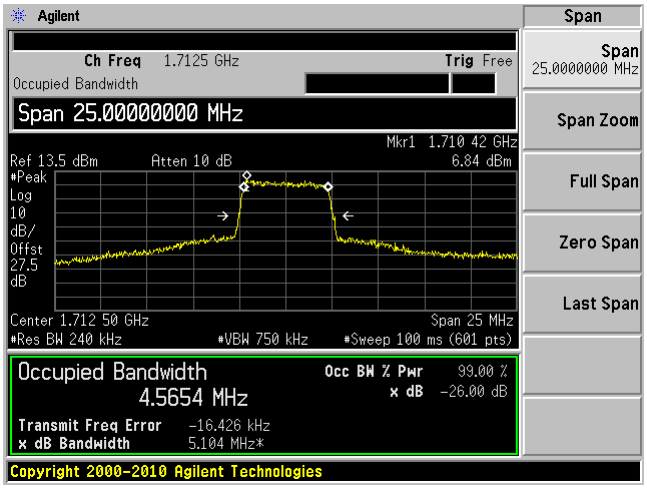


LTE Band 4, UL, 5 MHz, 64QAM

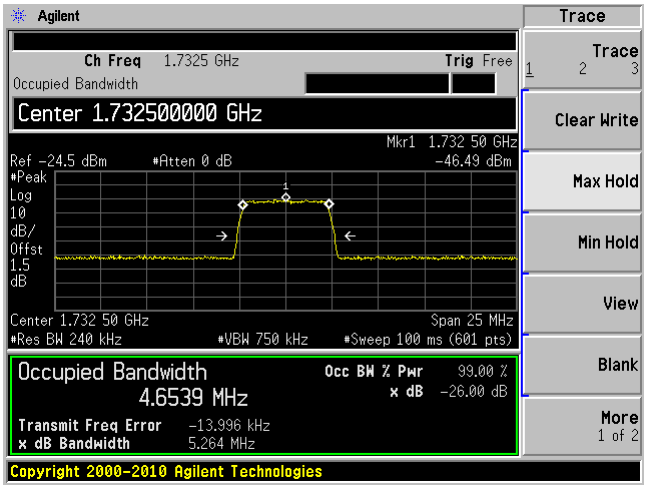
Low I/P



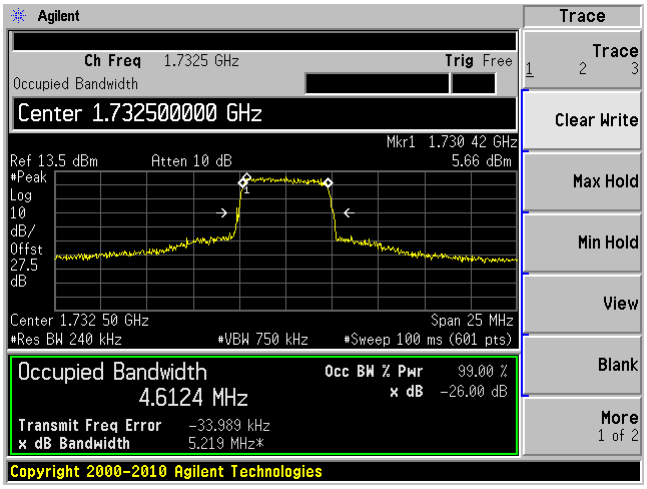
Low O/P



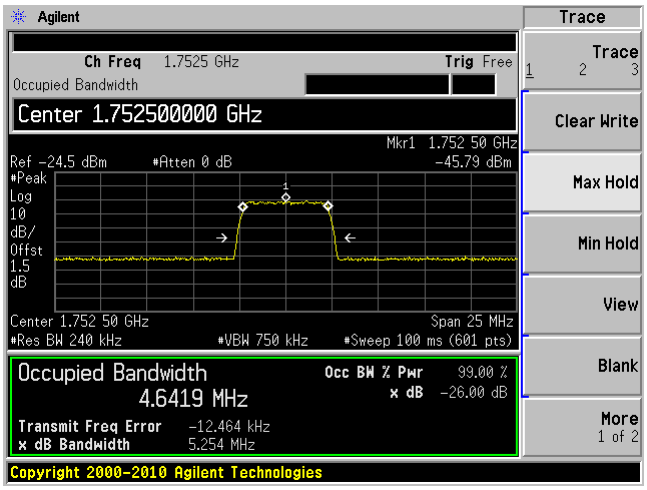
Middle I/P



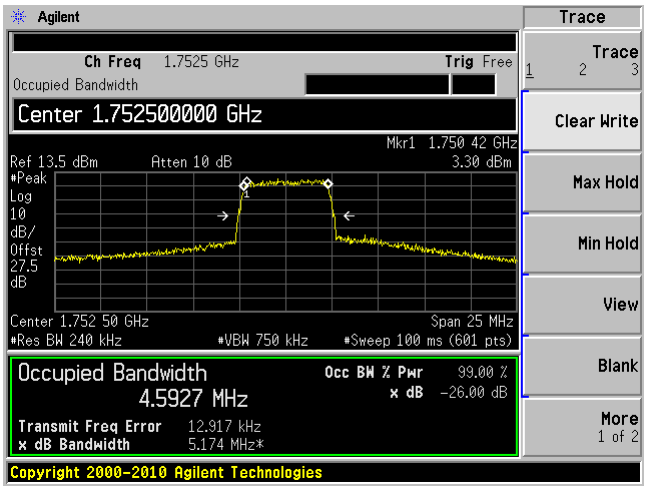
Middle O/P



High I/P

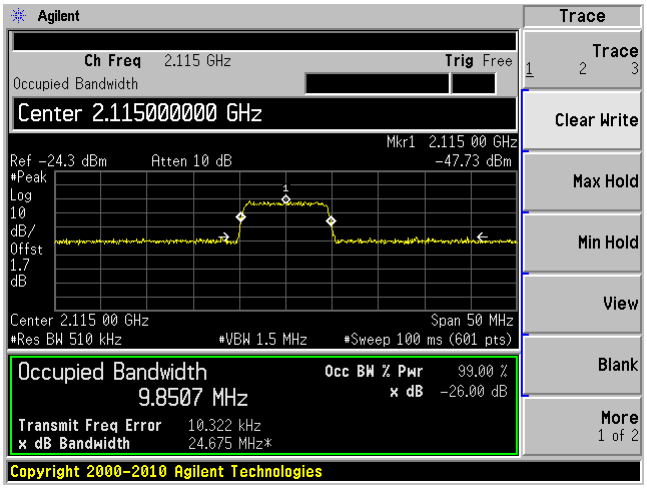


High O/P

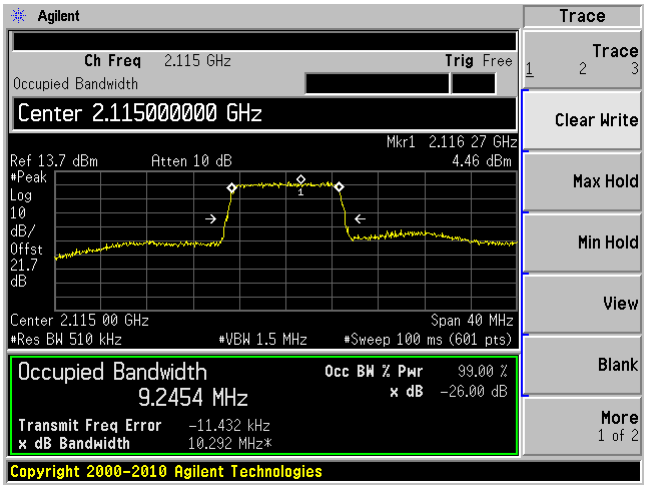


LTE Band 4, DL, 10 MHz, 64QAM

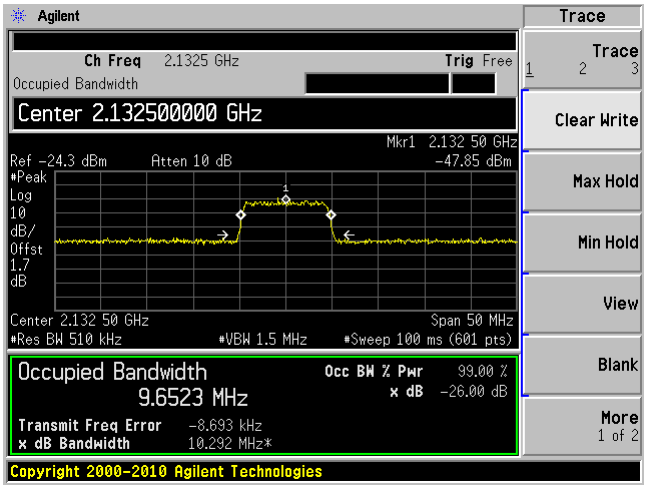
Low I/P



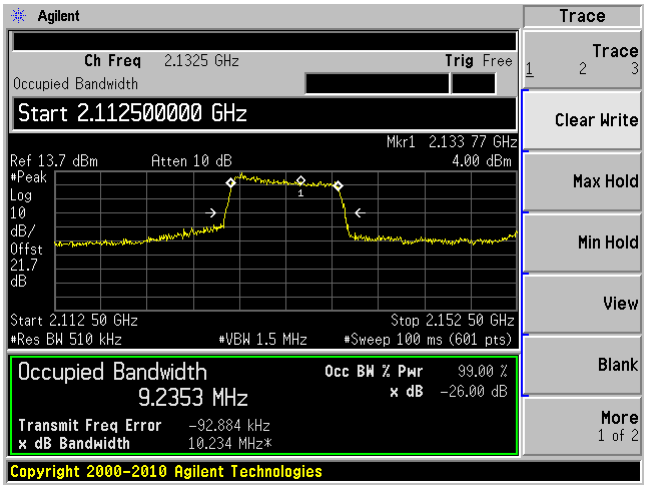
Low O/P



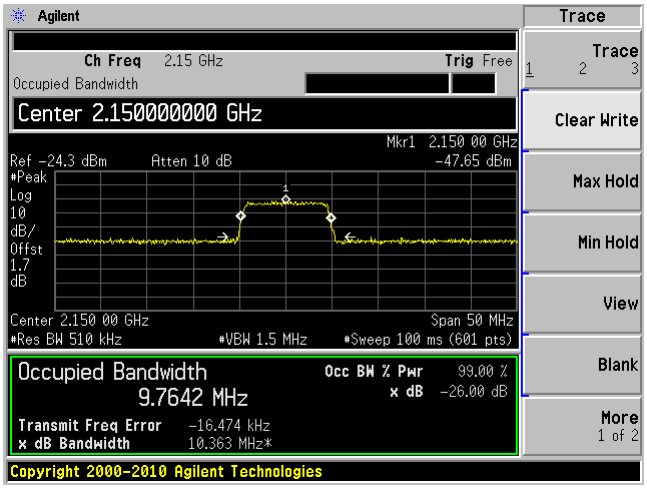
Middle I/P



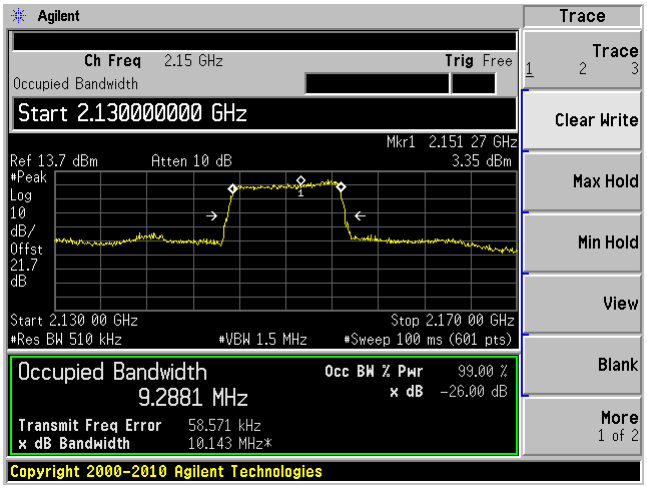
Middle O/P



High I/P

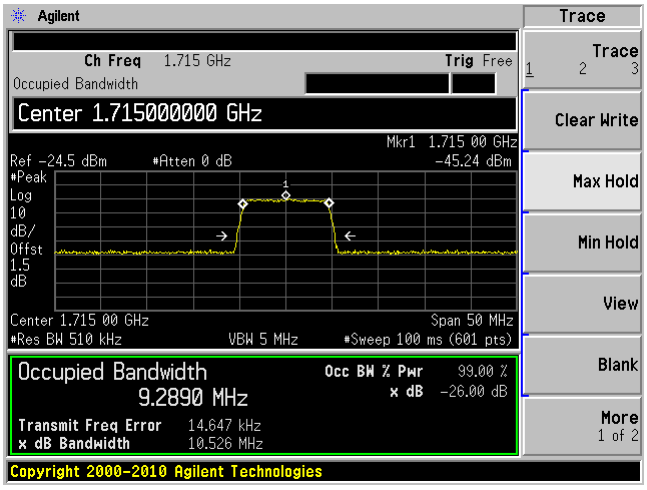


High O/P

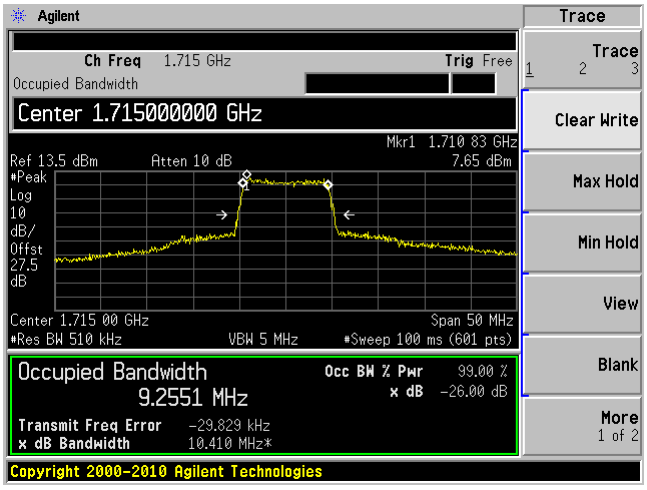


LTE Band 4, UL, 10 MHz, 64QAM

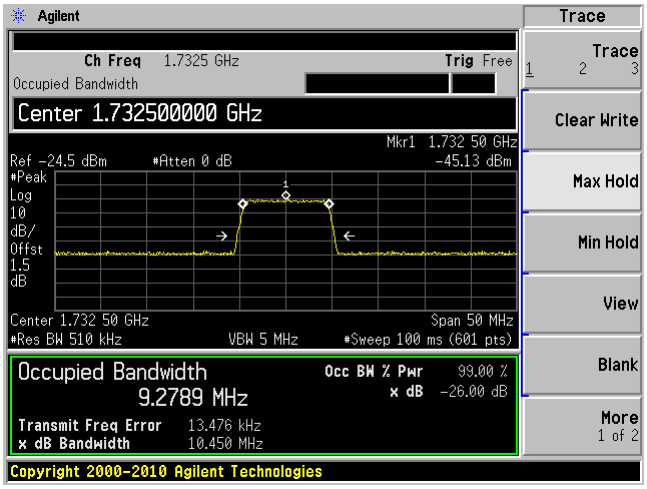
Low I/P



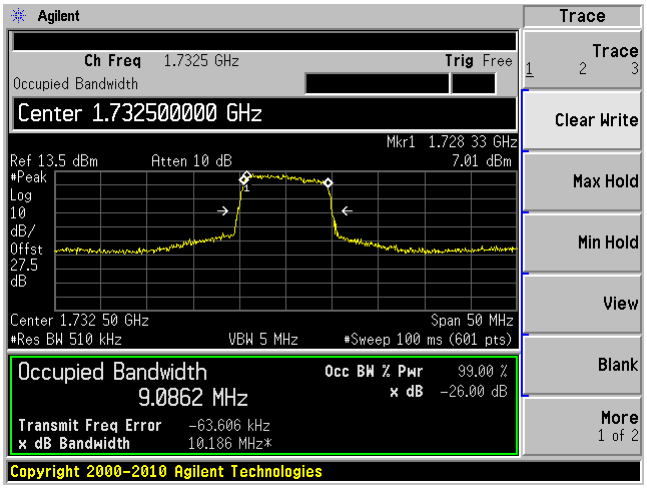
Low O/P



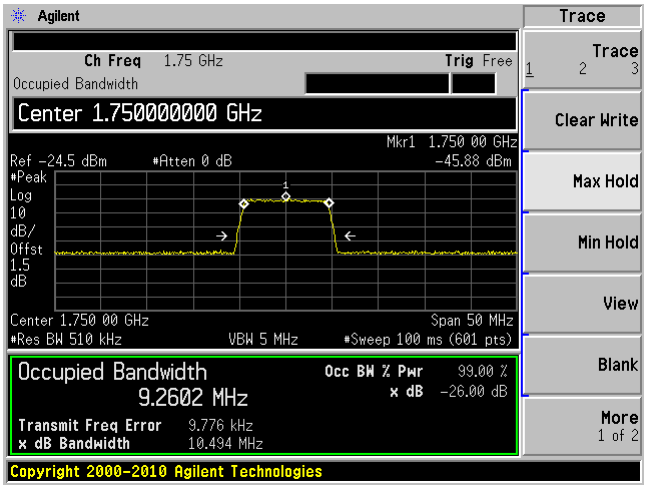
Middle I/P



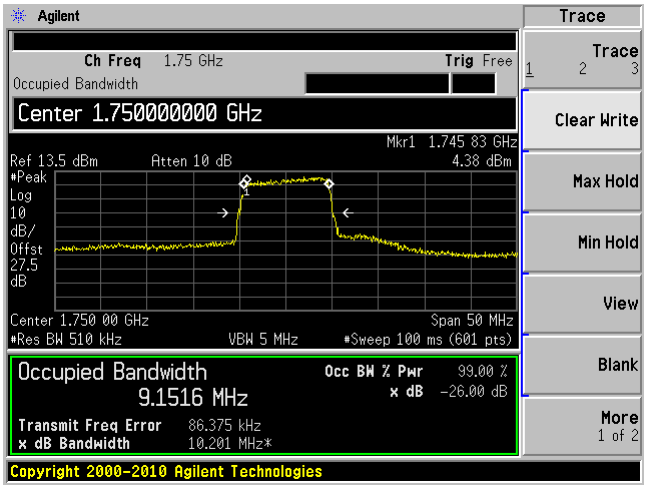
Middle O/P



High I/P

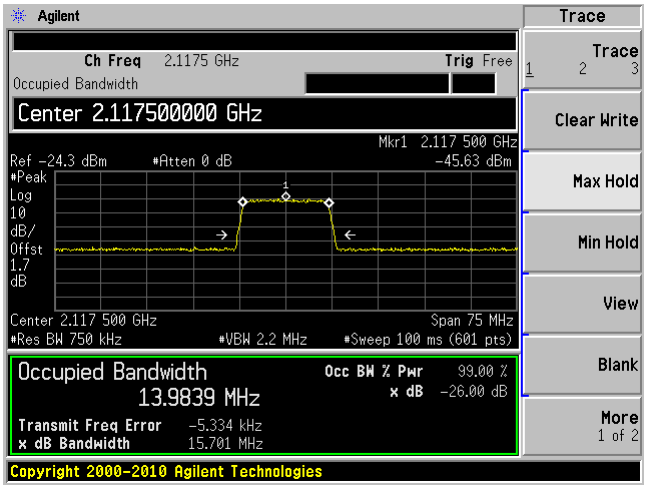


High O/P

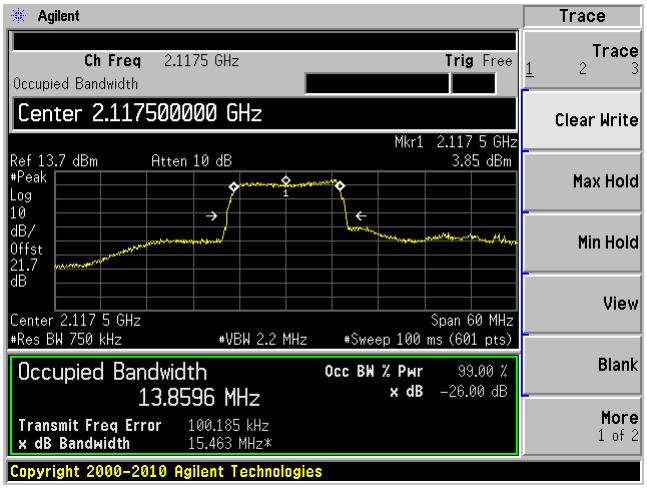


LTE Band 4, DL, 15 MHz, 64QAM

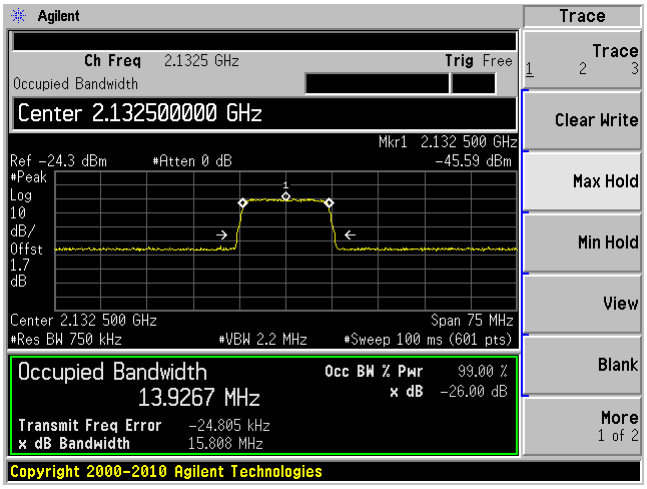
Low I/P



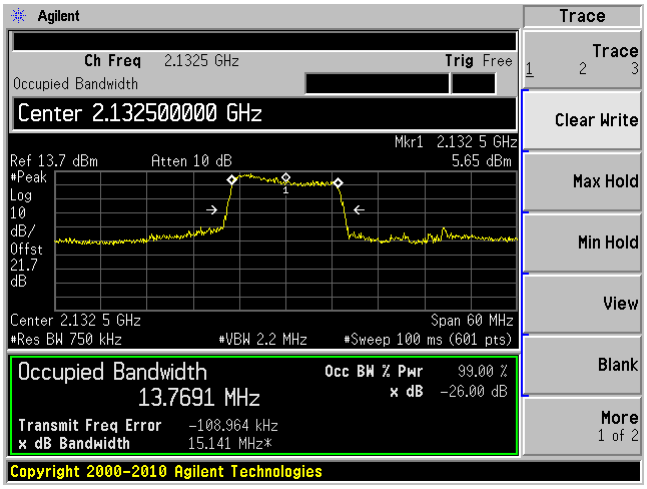
Low O/P



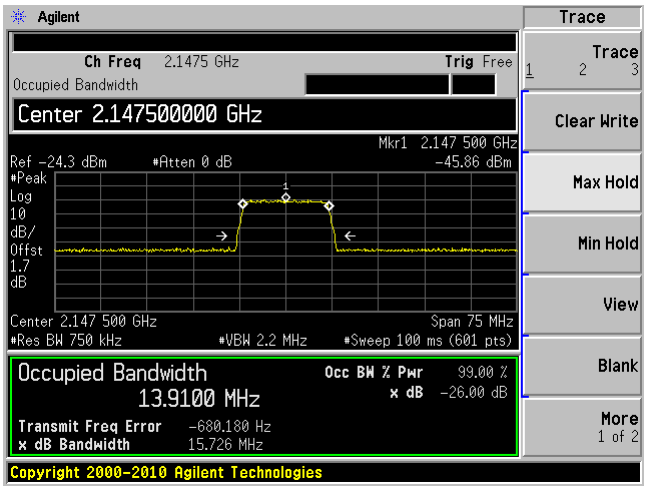
Middle I/P



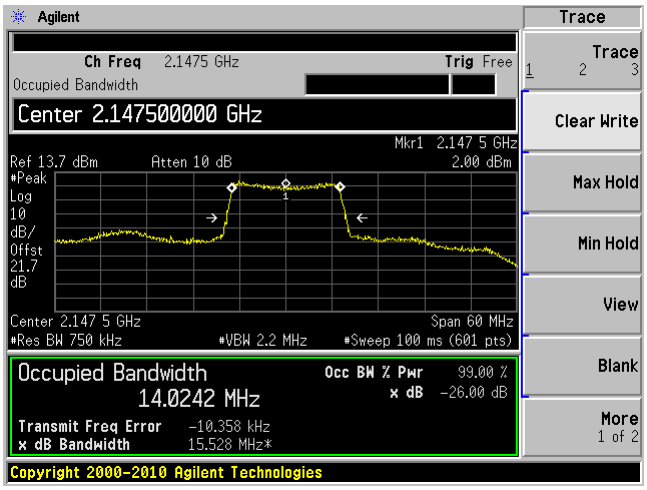
Middle O/P



High I/P

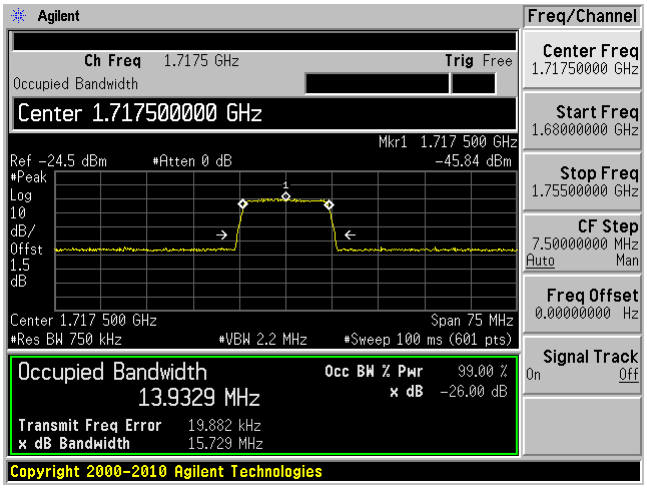


High O/P

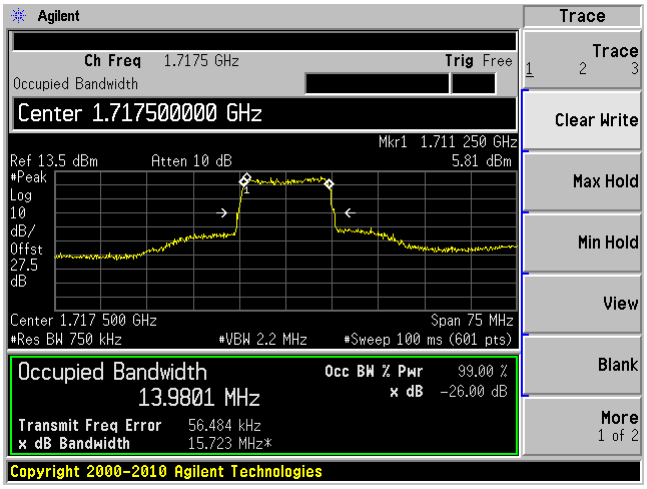


LTE Band 4, UL, 15 MHz, 64QAM

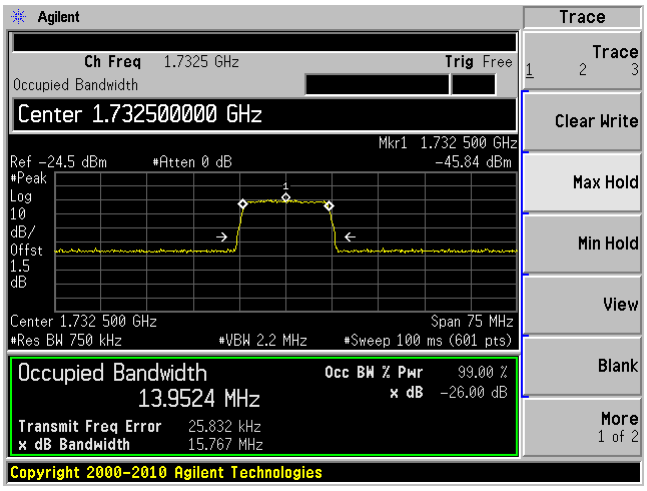
Low I/P



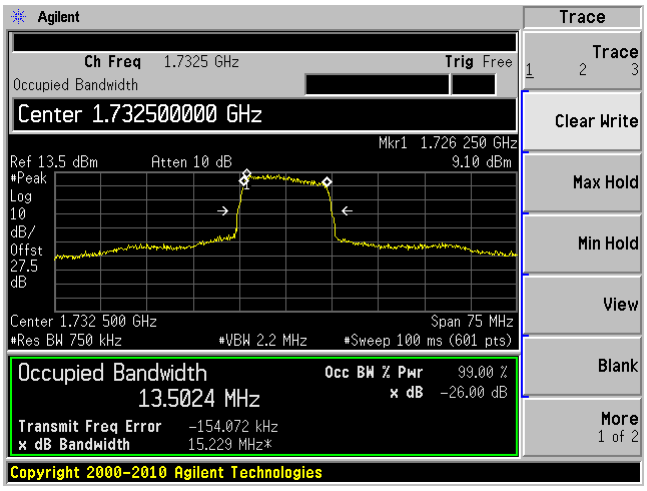
Low O/P



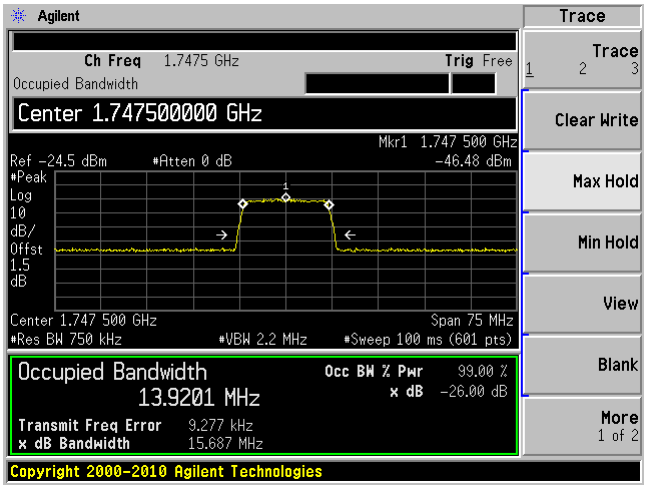
Middle I/P



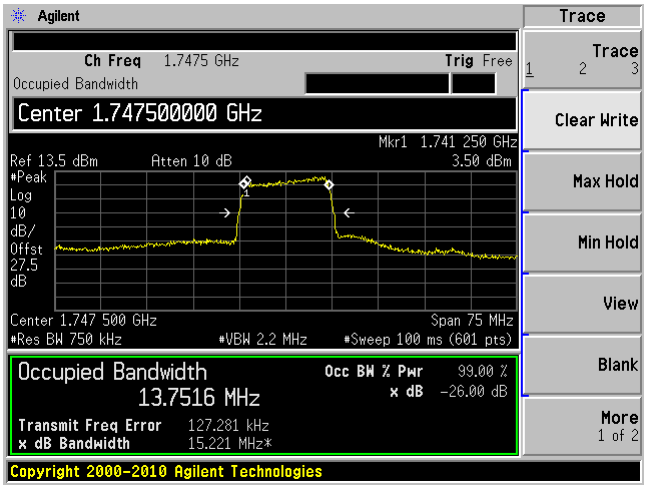
Middle O/P



High I/P

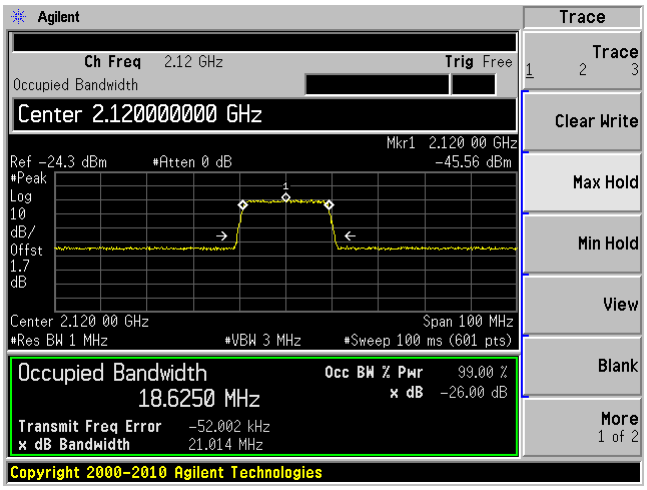


High O/P

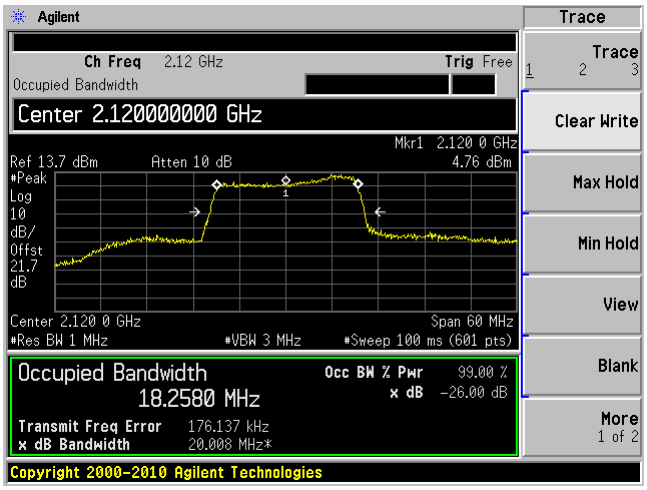


LTE Band 4, DL, 20 MHz, 64QAM

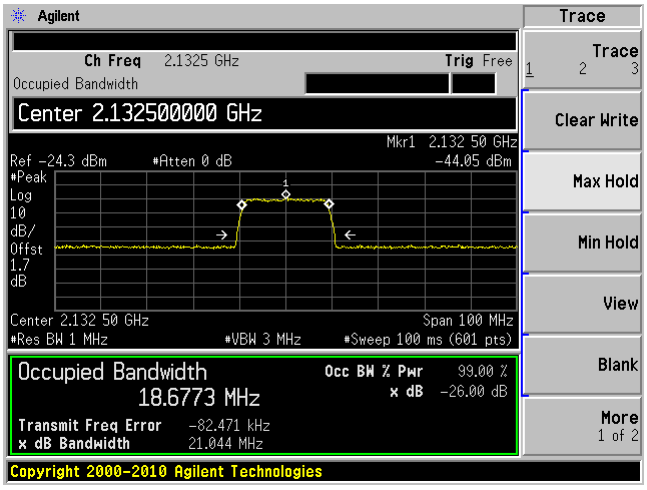
Low I/P



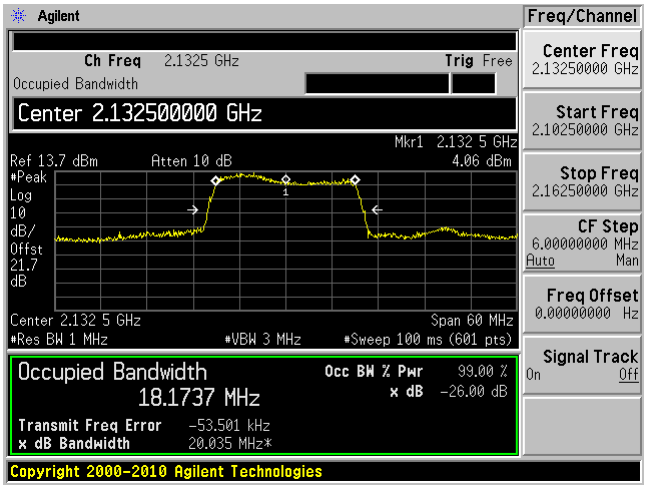
Low O/P



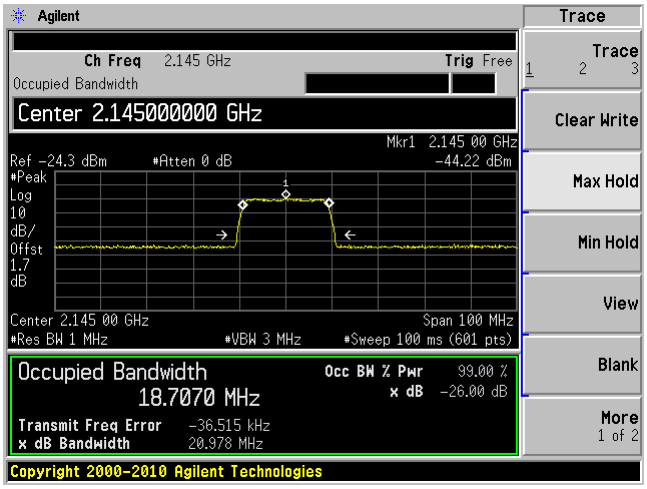
Middle I/P



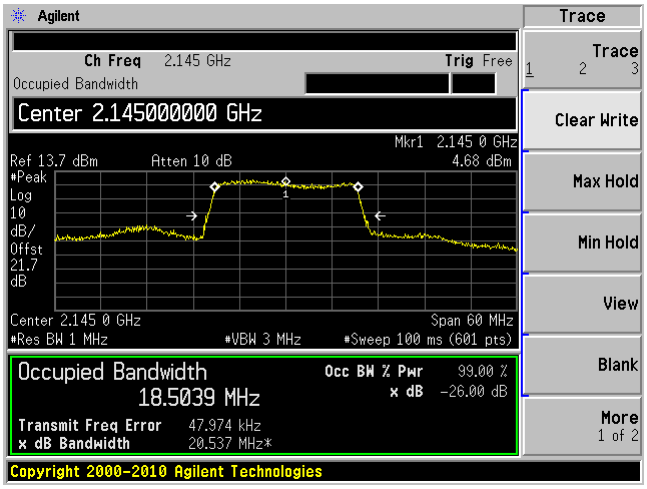
Middle O/P



High I/P

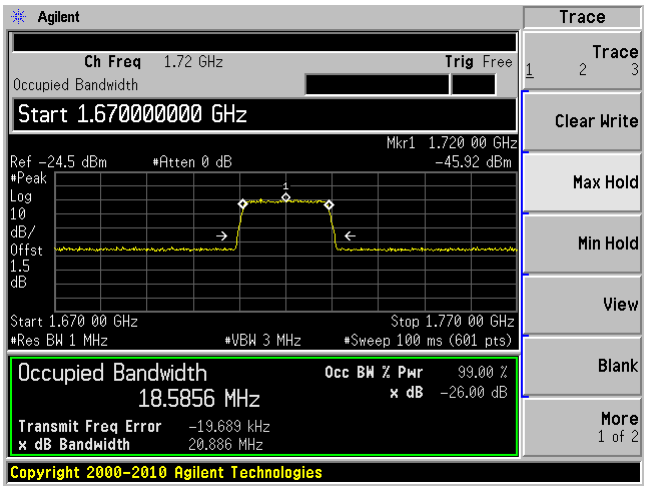


High O/P

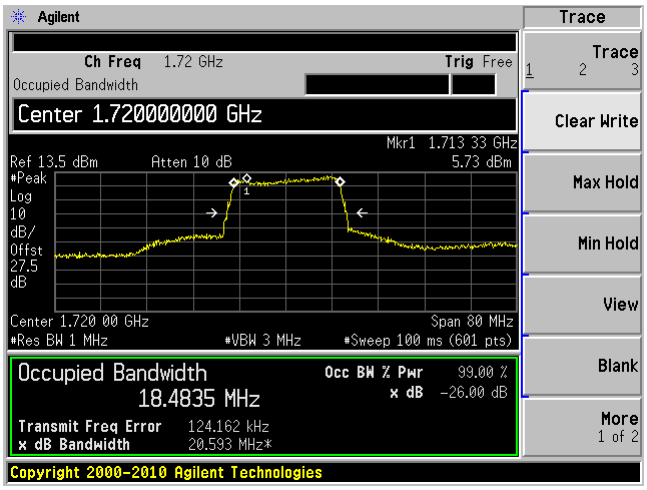


LTE Band 4, UL, 20 MHz, 64QAM

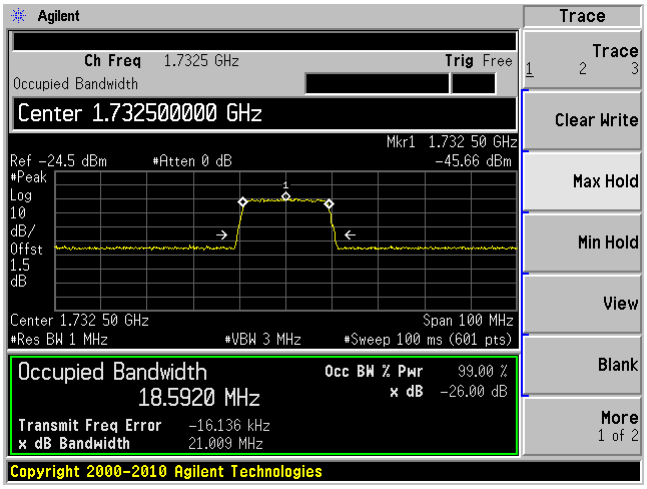
Low I/P



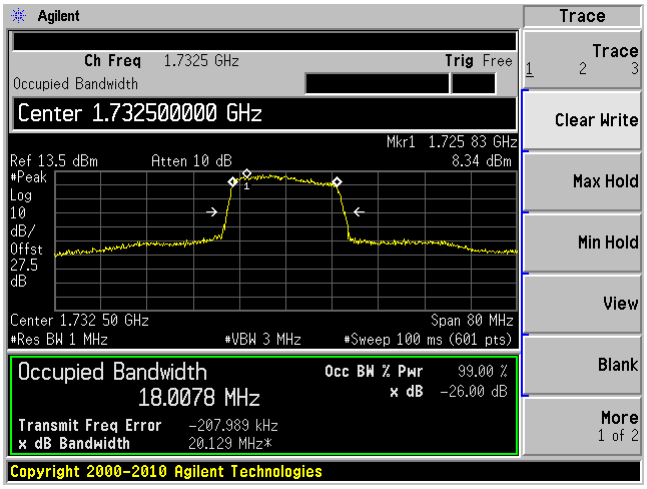
Low O/P



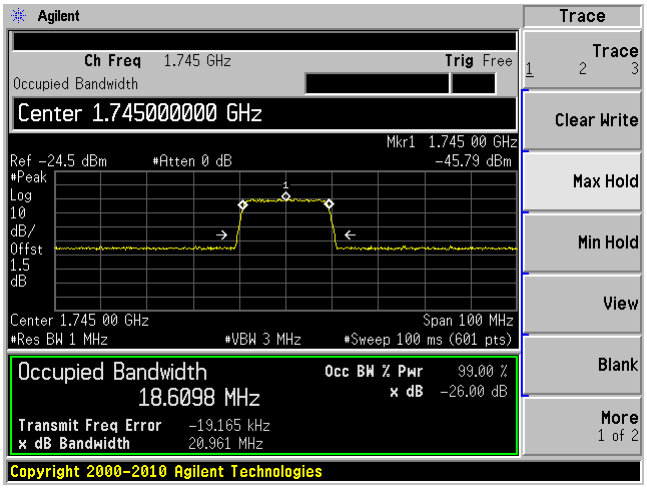
Middle I/P



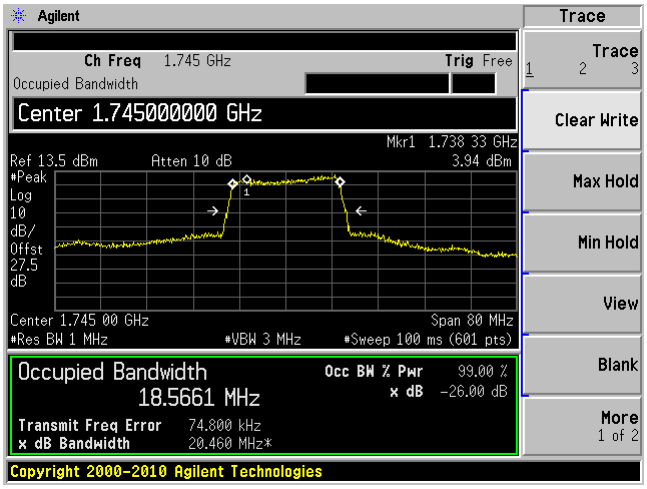
Middle O/P



High I/P

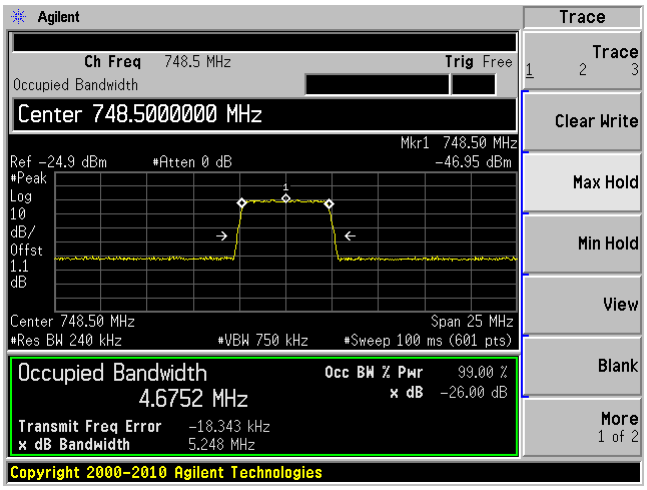


High O/P

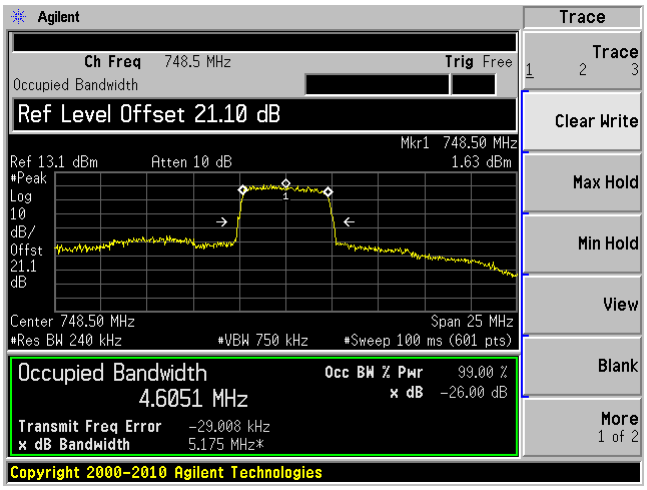


LTE Band 13, DL, 5 MHz, QPSK

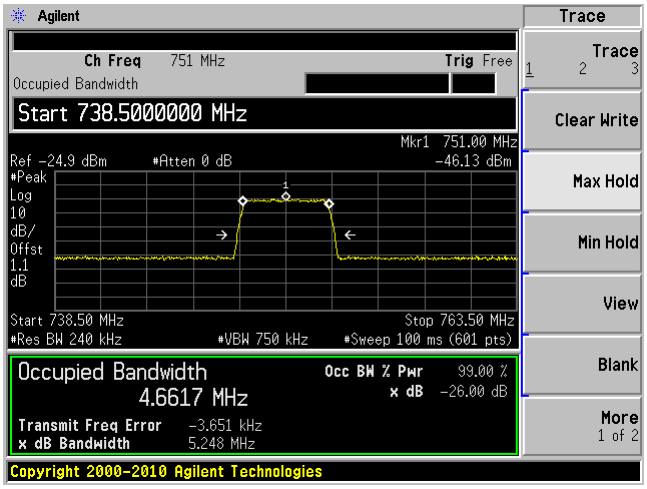
Low I/P



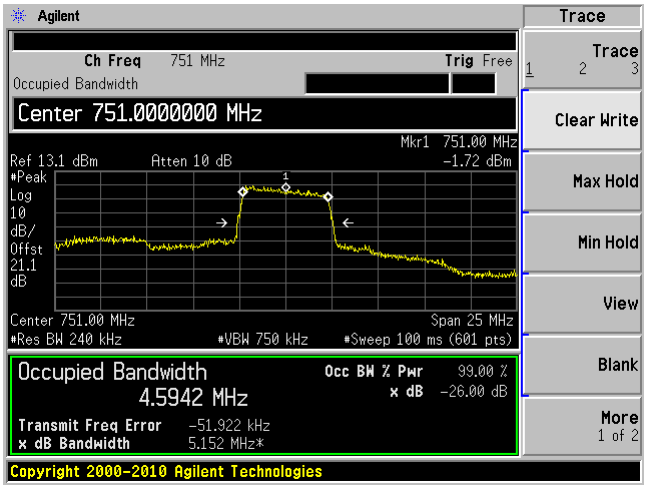
Low O/P



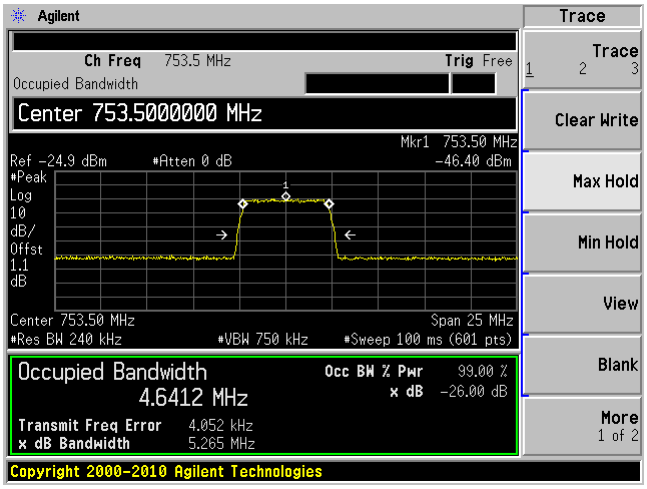
Middle I/P



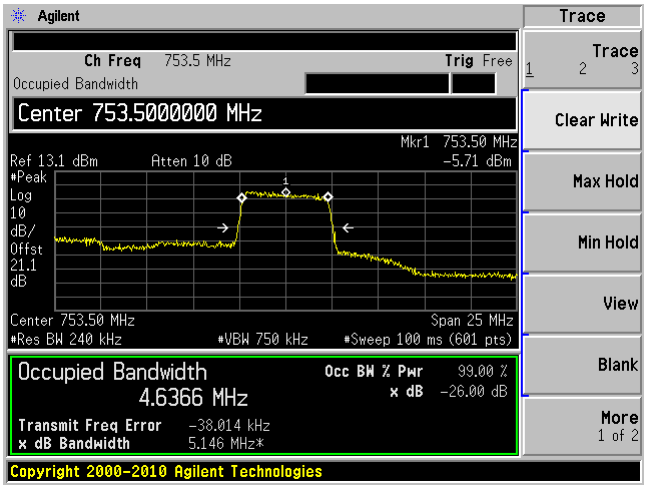
Middle O/P



High I/P

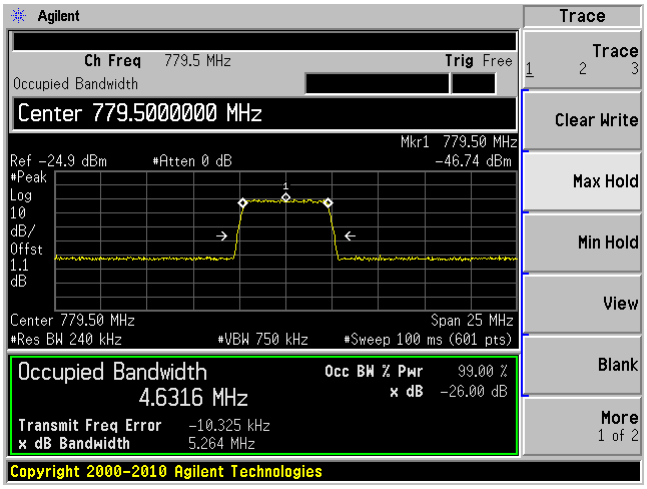


High O/P

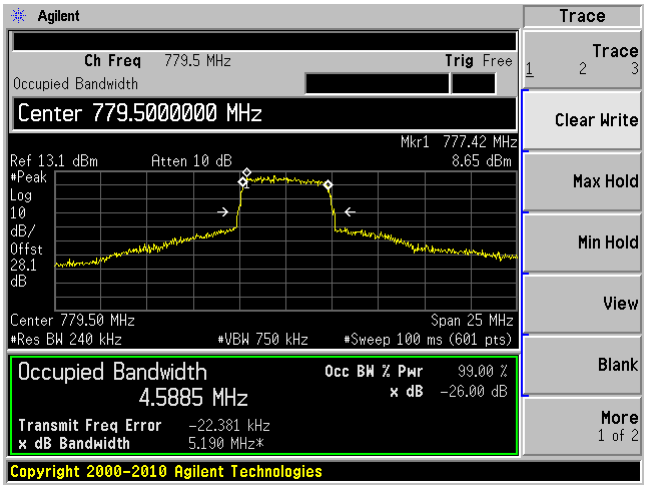


LTE Band 13, UL, 5 MHz, QPSK

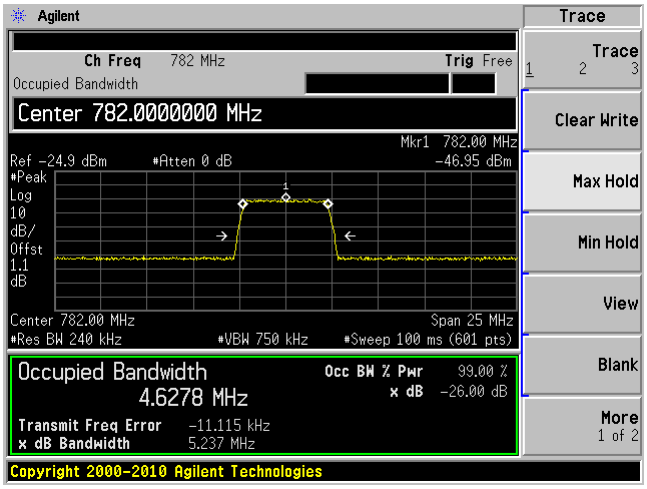
Low I/P



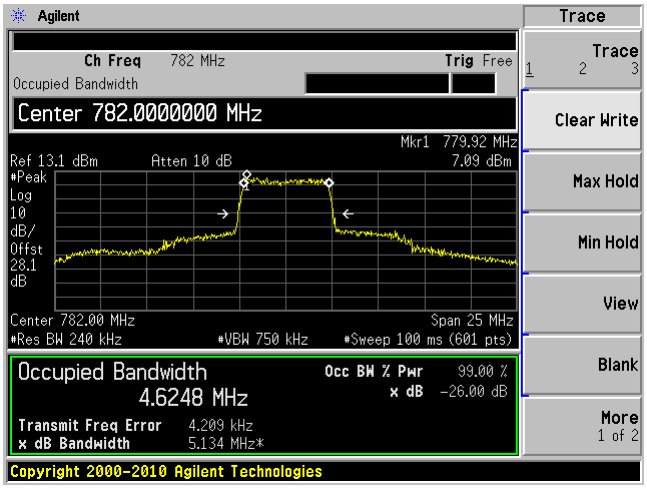
Low O/P



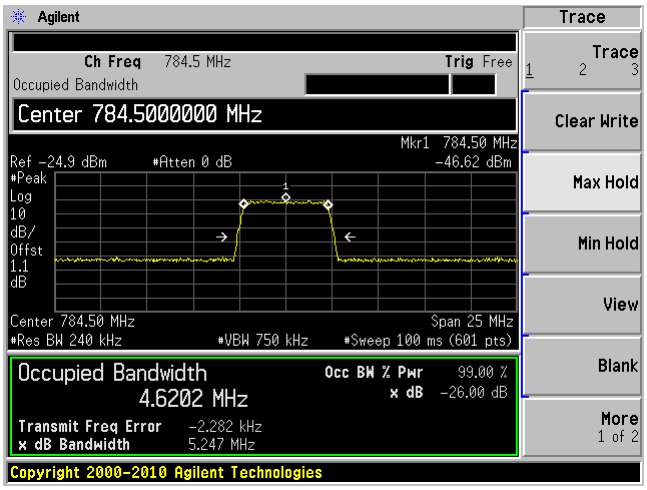
Middle I/P



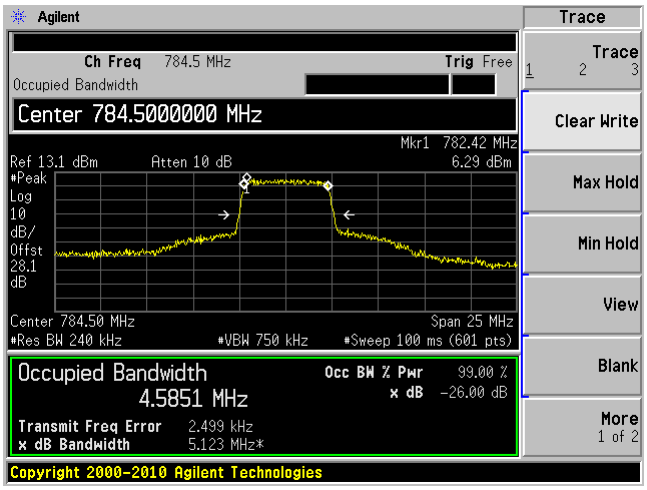
Middle O/P



High I/P

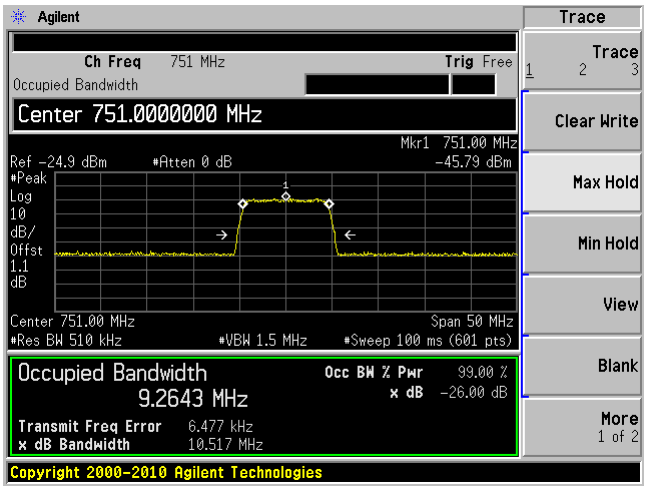


High O/P

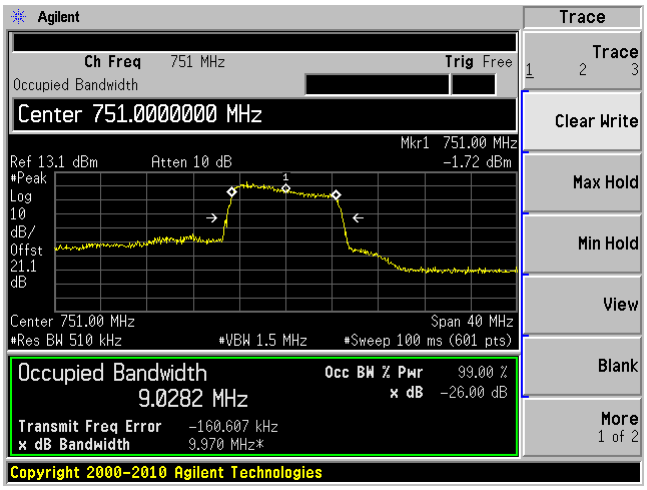


LTE Band 13, DL, 10 MHz, QPSK

Middle I/P

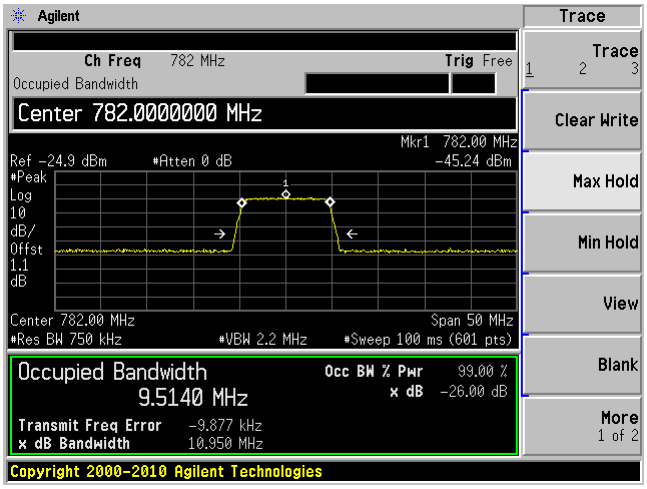


Middle O/P

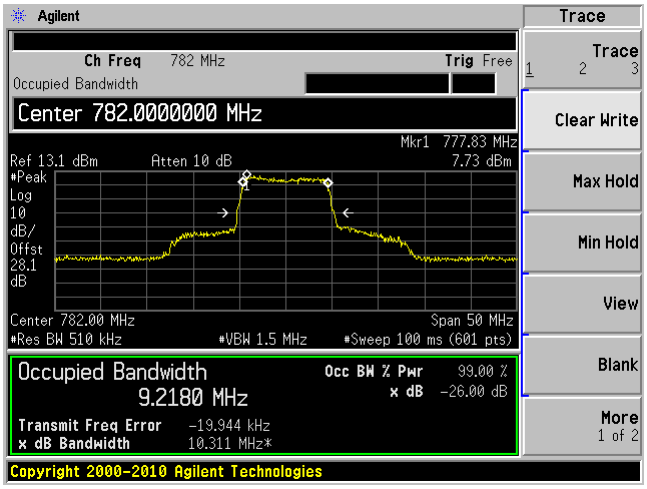


LTE Band 13, UL, 10 MHz, QPSK

Middle I/P

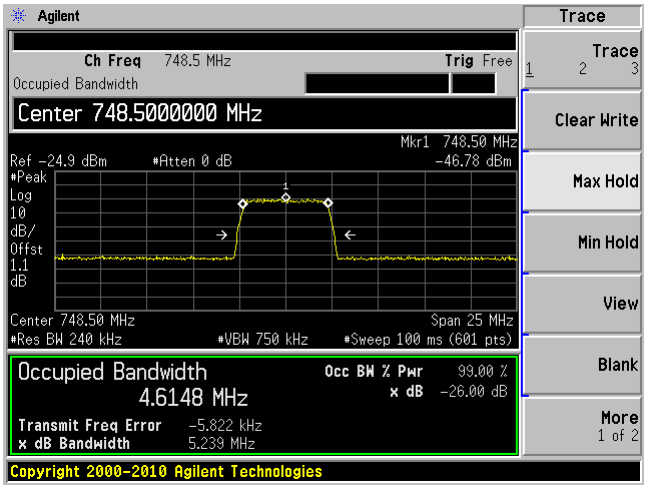


Middle O/P

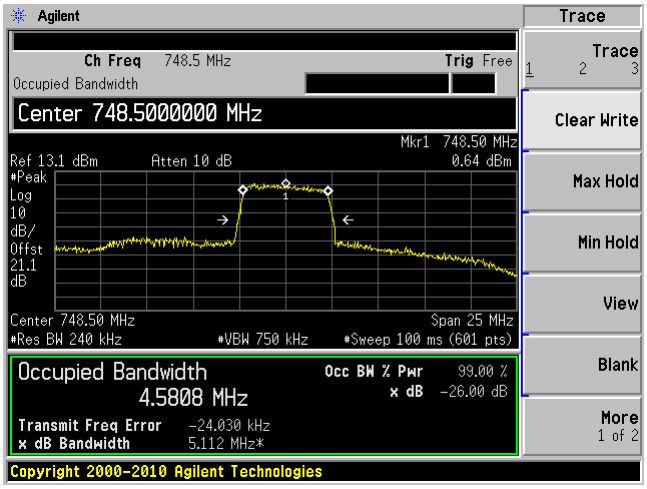


LTE Band 13, DL, 5 MHz, 16QAM

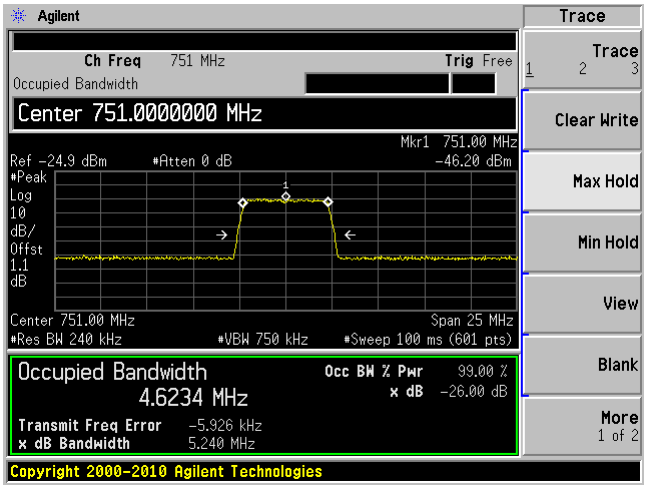
Low I/P



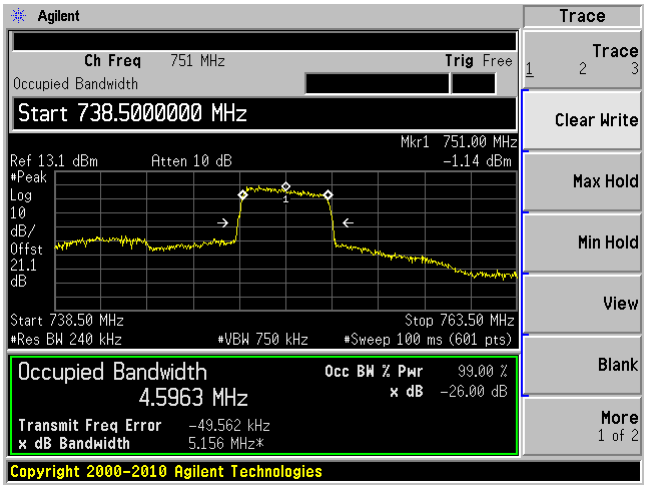
Low O/P



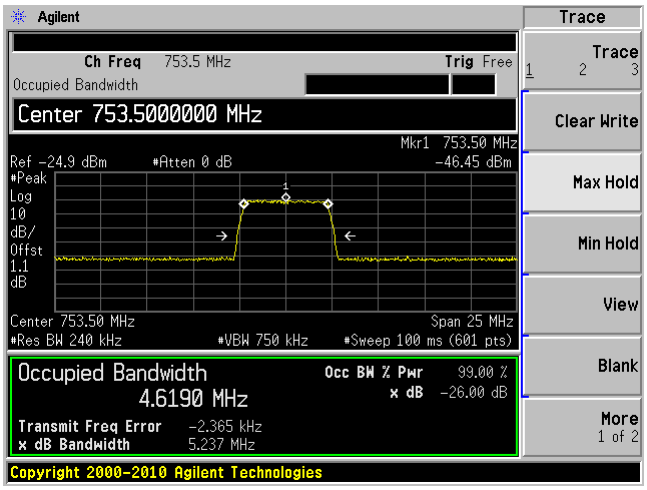
Middle I/P



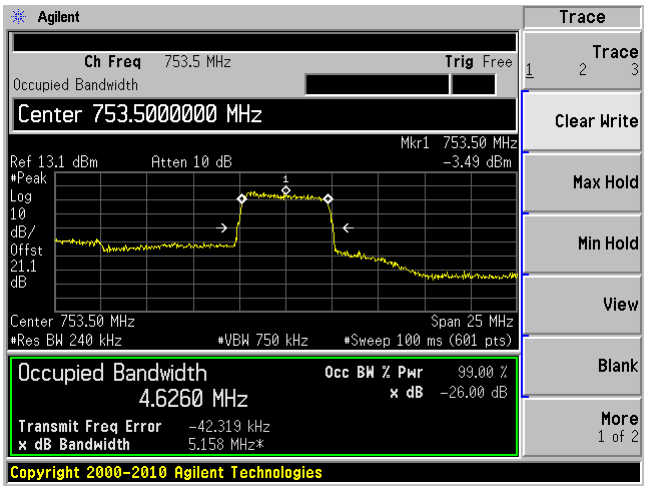
Middle O/P



High I/P

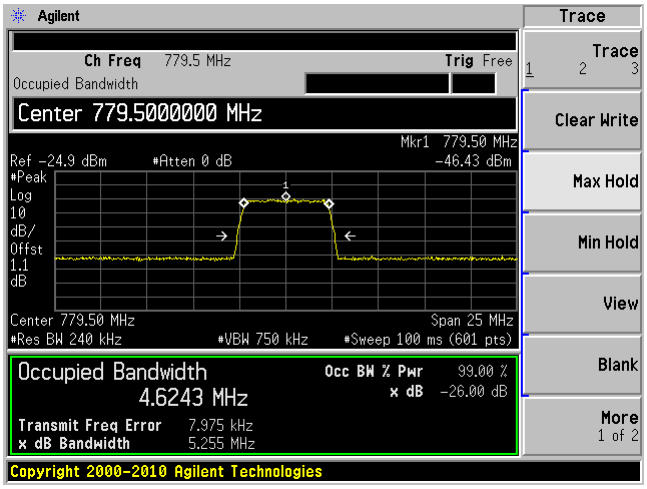


High O/P

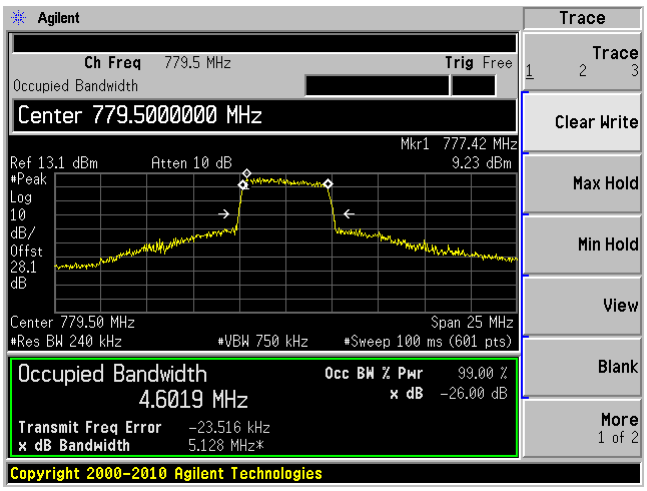


LTE Band 13, UL, 5 MHz, 16QAM

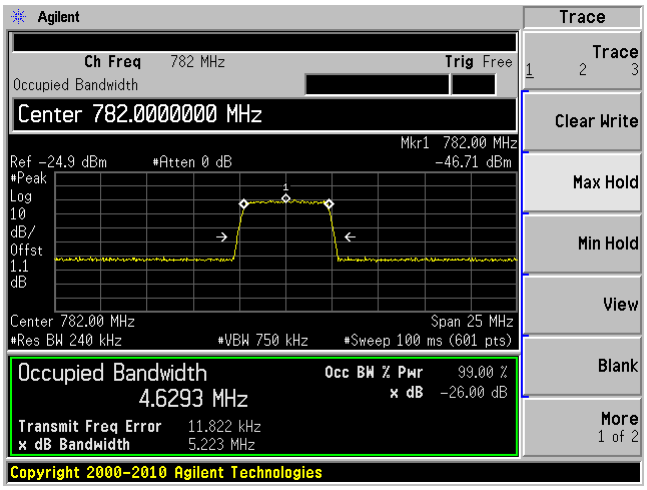
Low I/P



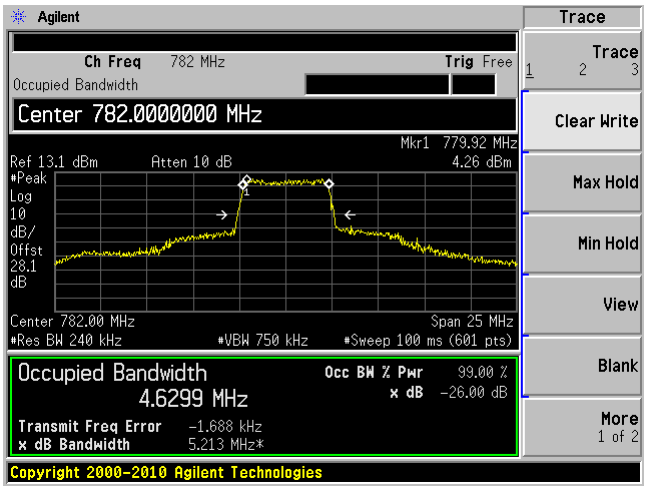
Low O/P



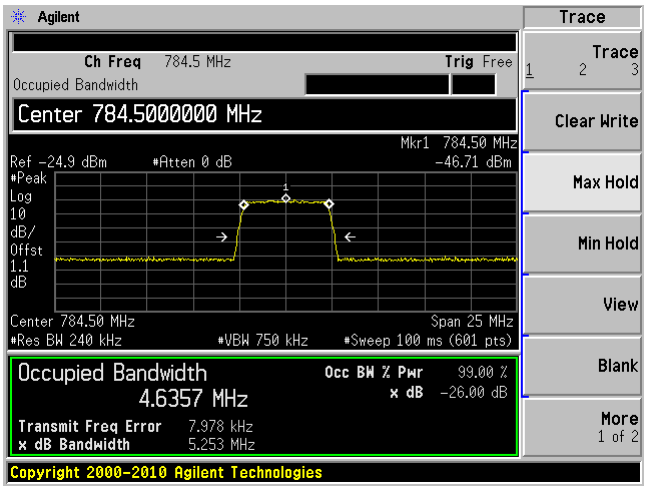
Middle I/P



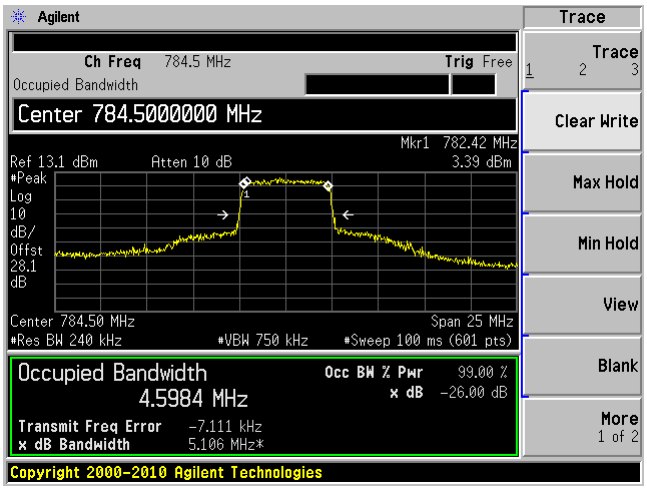
Middle O/P



High I/P

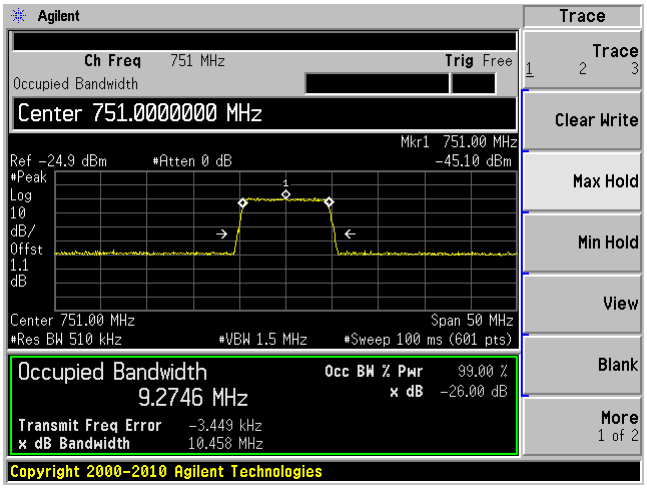


High O/P

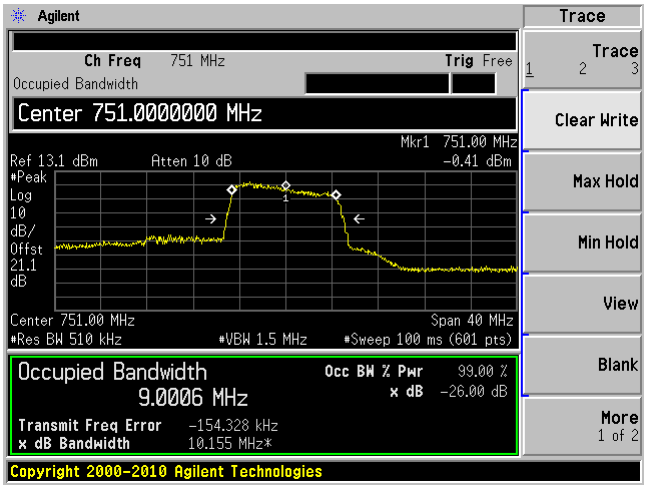


LTE Band 13, DL, 10 MHz, 16QAM

Middle I/P

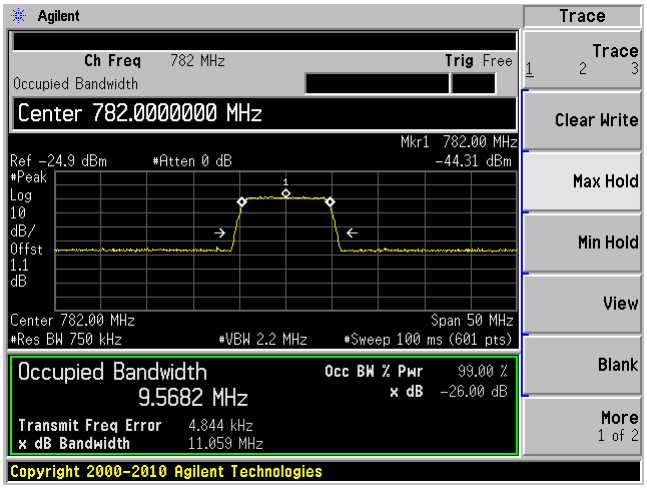


Middle O/P

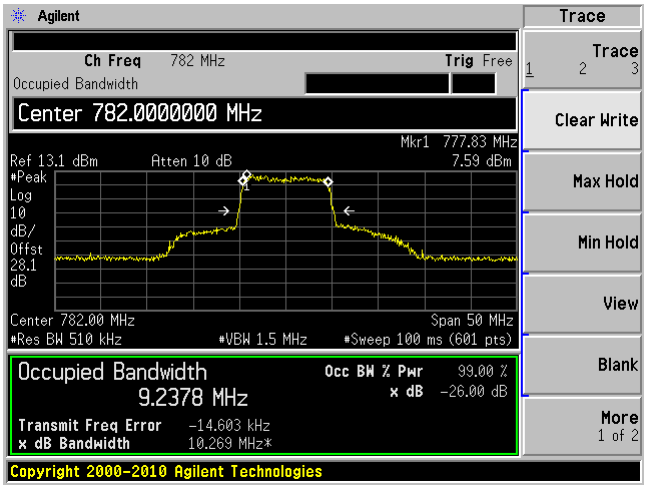


LTE Band 13, UL, 10 MHz, 16QAM

Middle I/P

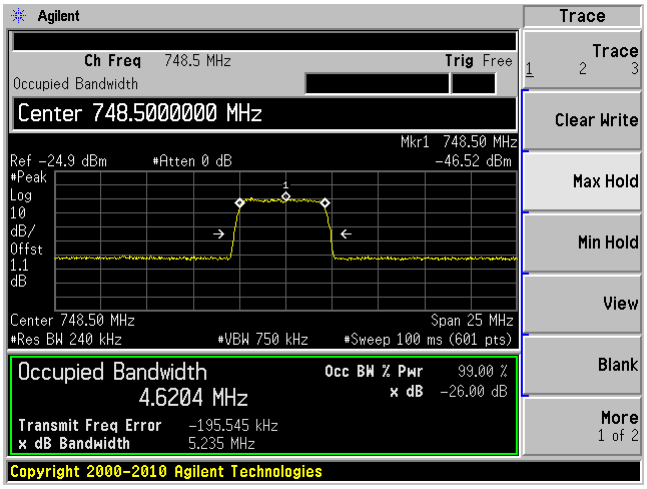


Middle O/P

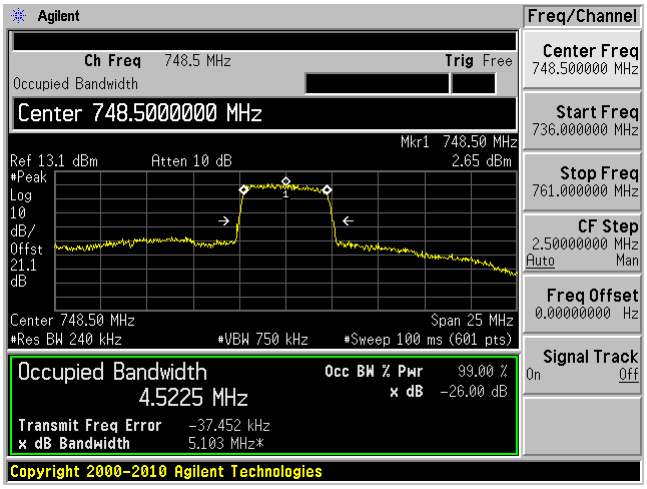


LTE Band 13, DL, 5 MHz, 64QAM

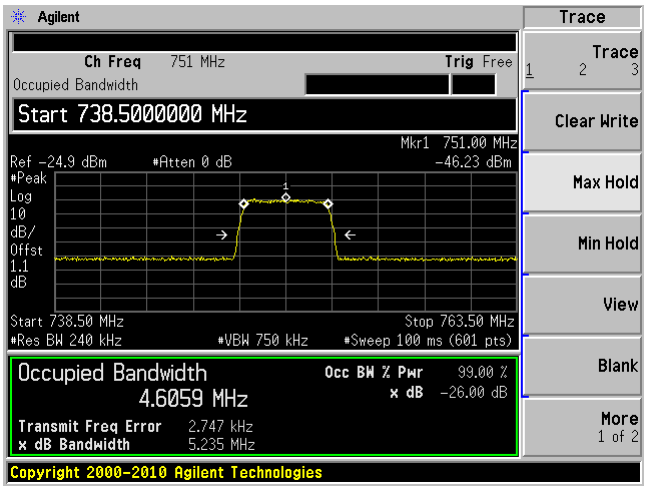
Low I/P



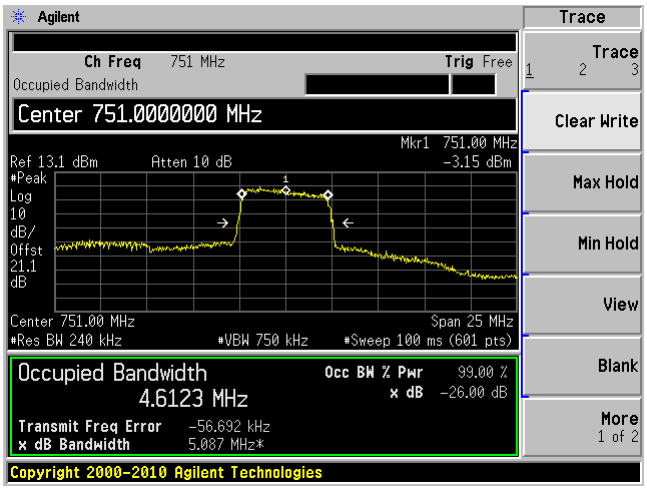
Low O/P



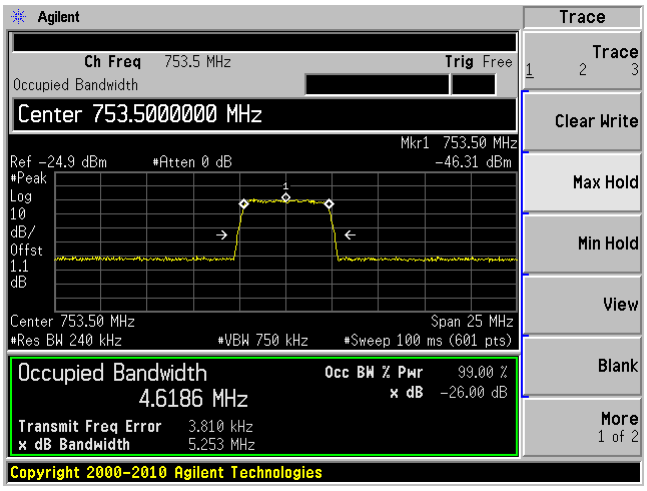
Middle I/P



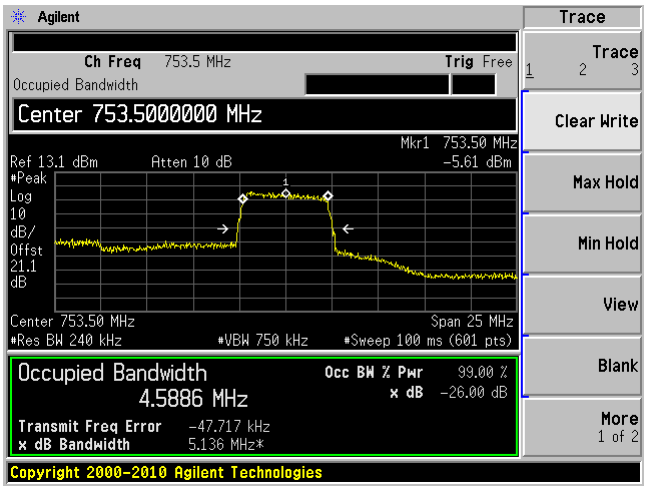
Middle O/P



High I/P

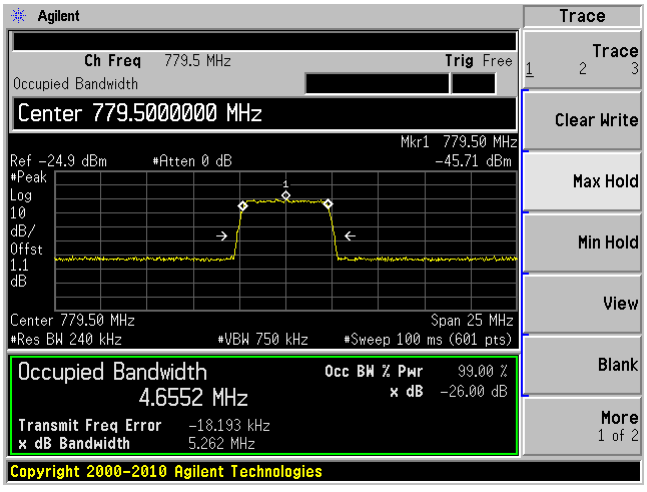


High O/P

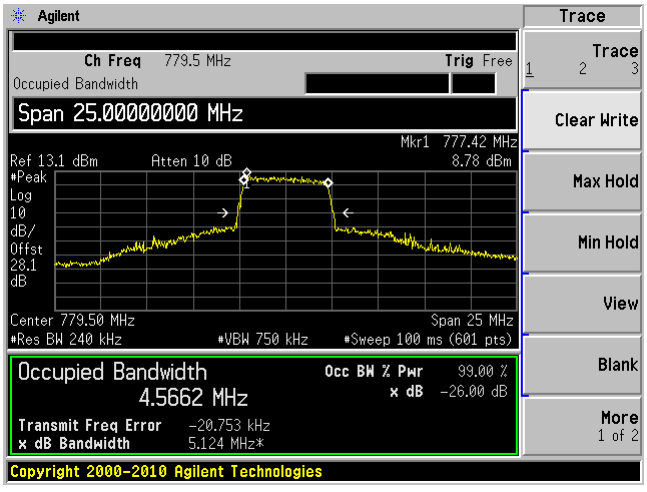


LTE Band 13, UL, 5 MHz, 64QAM

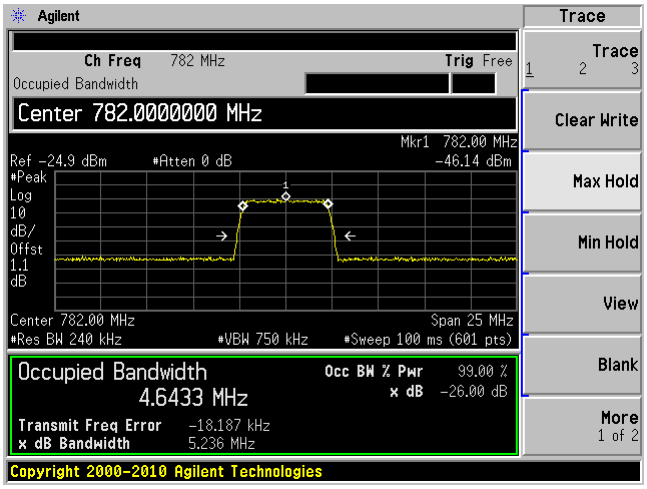
Low I/P



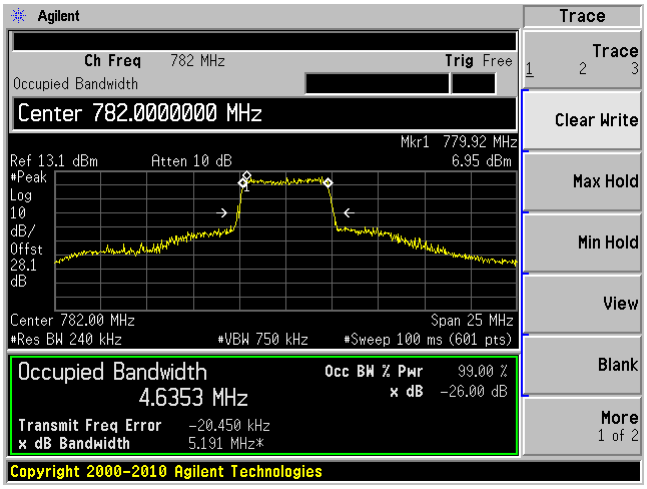
Low O/P



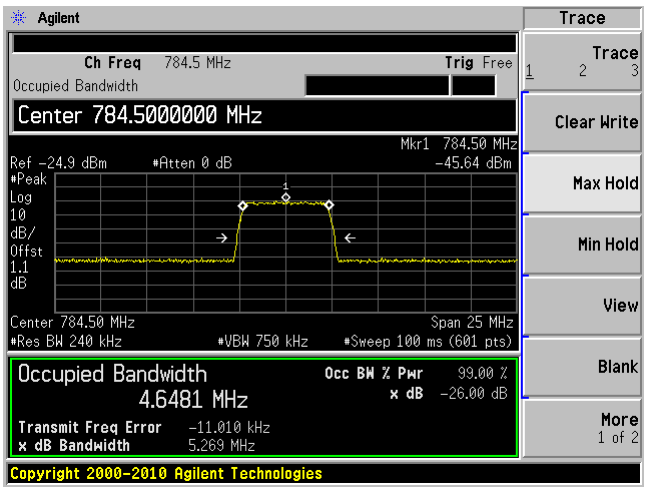
Middle I/P



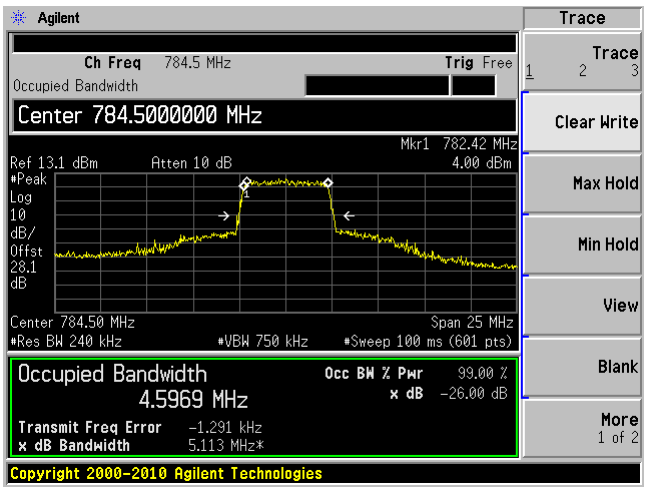
Middle O/P



High I/P

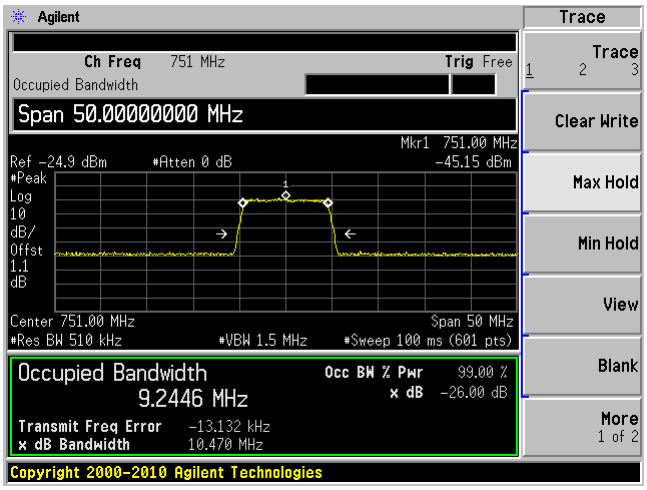


High O/P

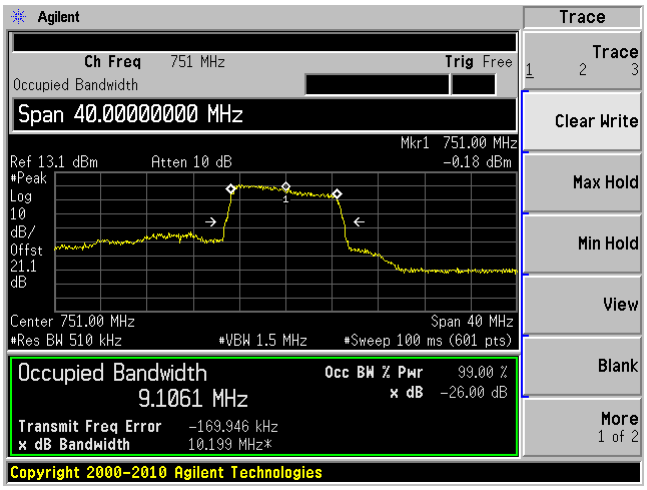


LTE Band 13, DL, 10 MHz, 64QAM

Middle I/P

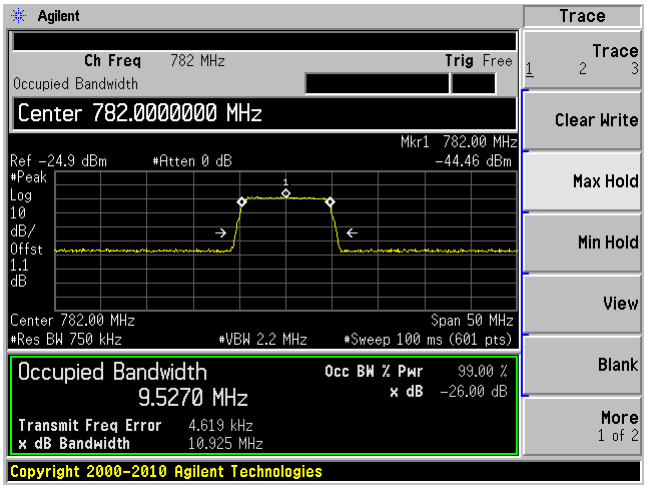


Middle O/P

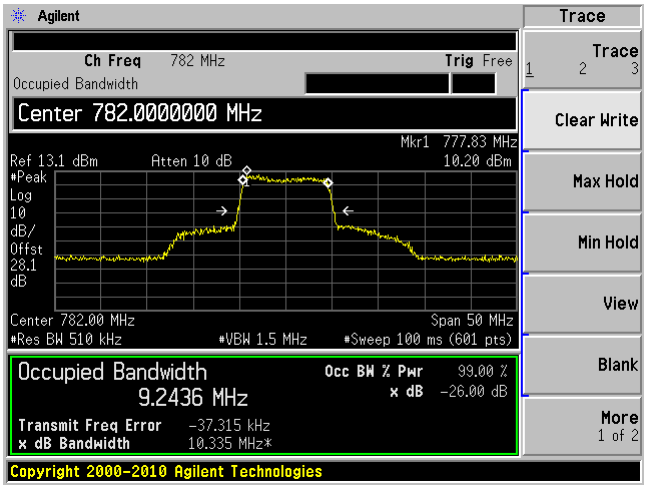


LTE Band 13, UL, 10 MHz, 64QAM

Middle I/P

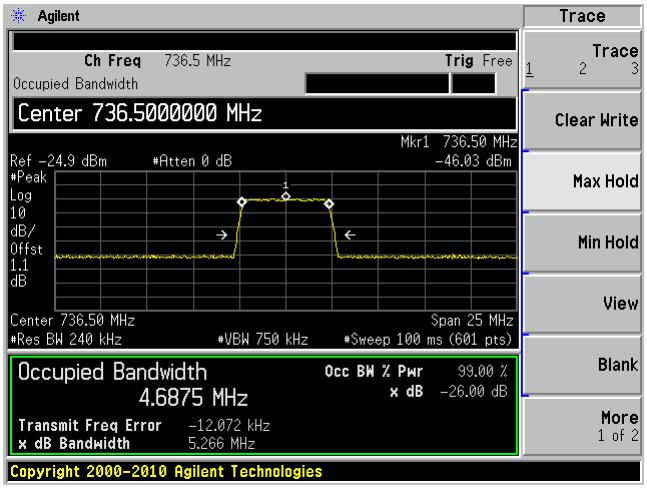


Middle O/P

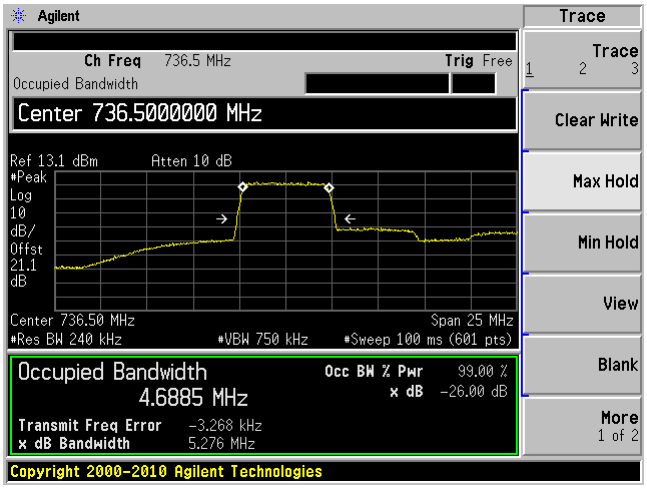


LTE Band 17, DL, 5 MHz, QPSK

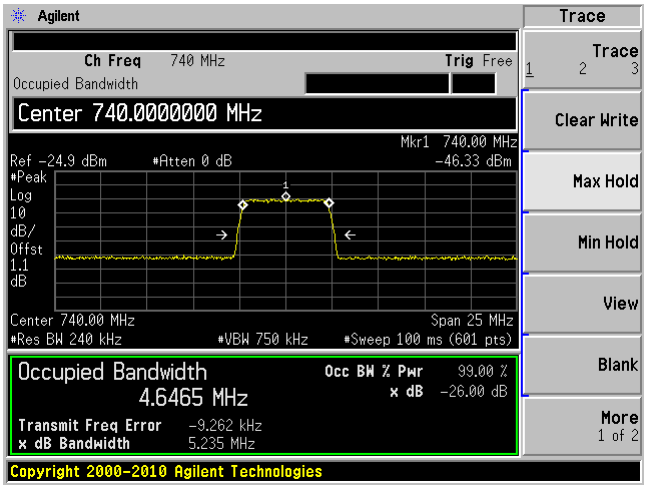
Low I/P



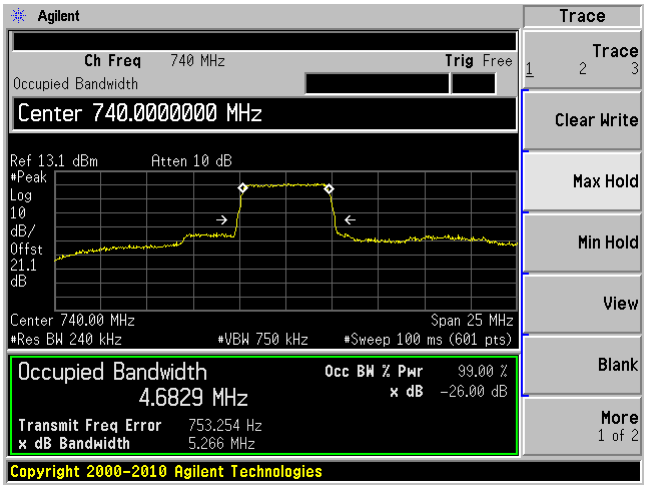
Low O/P



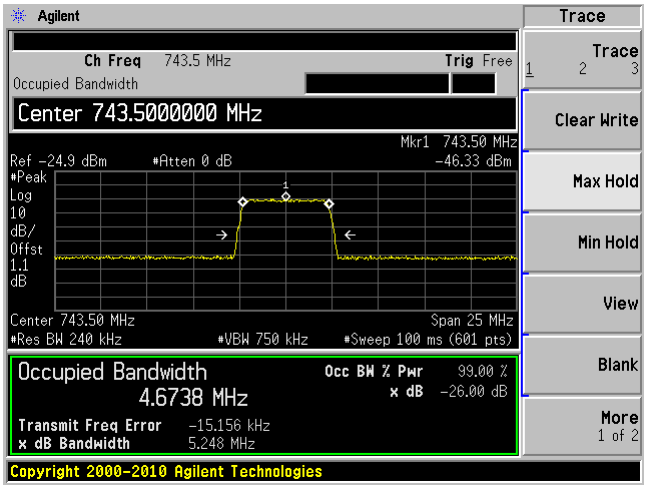
Middle I/P



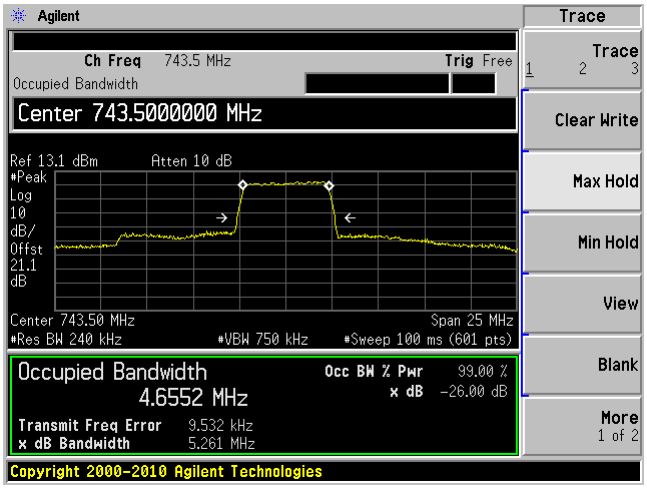
Middle O/P



High I/P

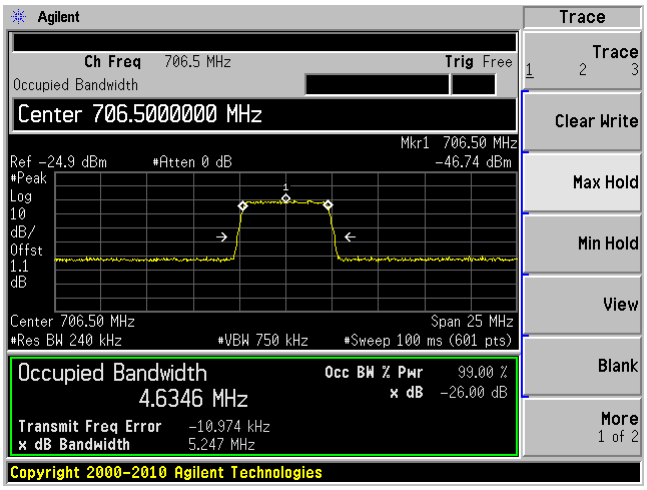


High O/P

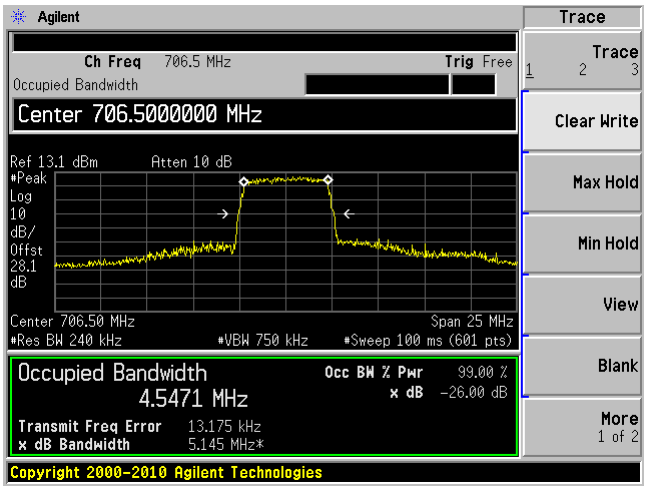


LTE Band 17, UL, 5 MHz, QPSK

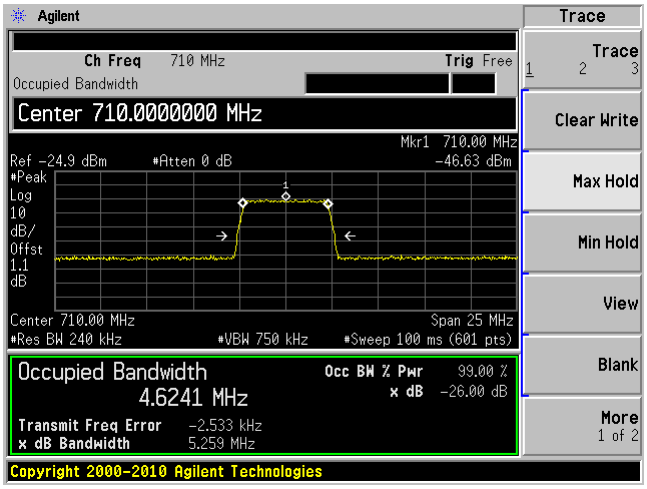
Low I/P



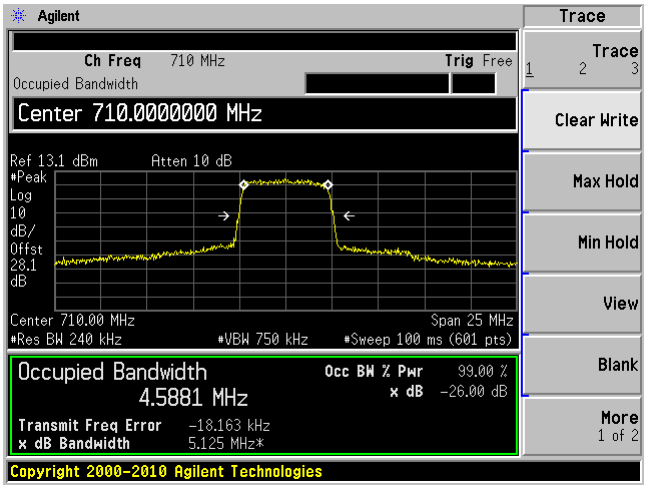
Low O/P



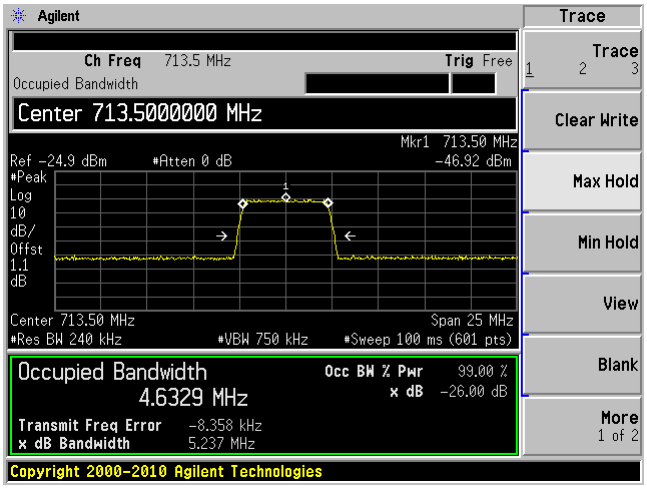
Middle I/P



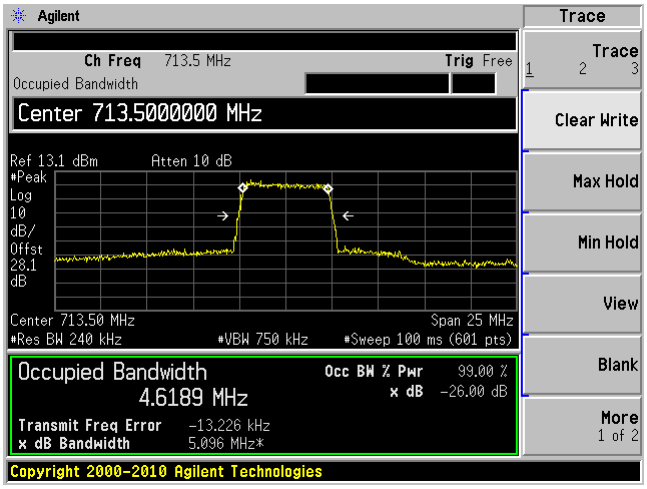
Middle O/P



High I/P

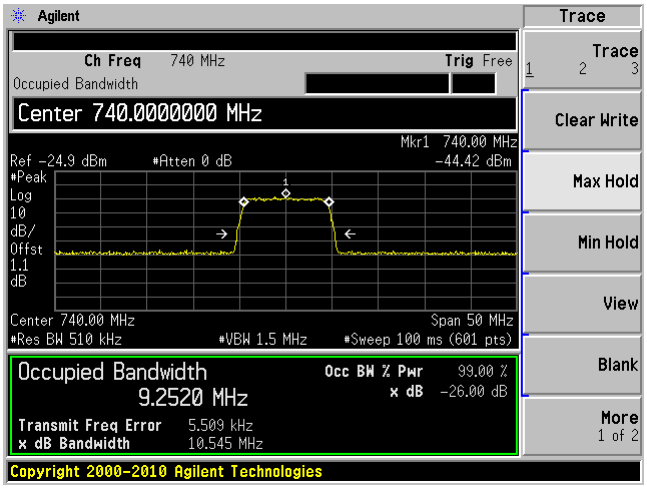


High O/P

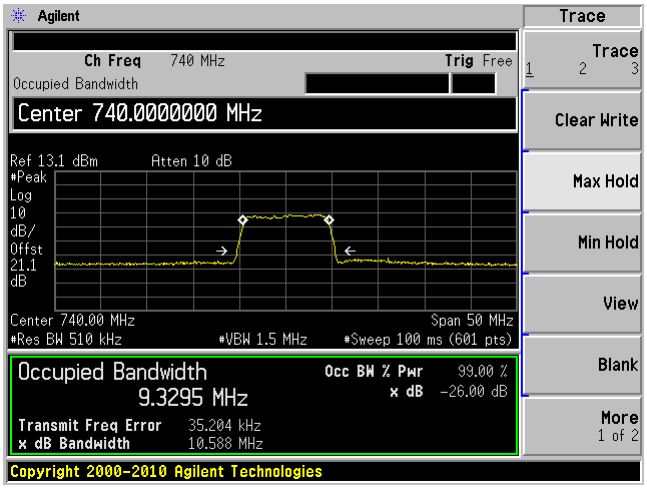


LTE Band 17, DL, 10 MHz, QPSK

Middle I/P

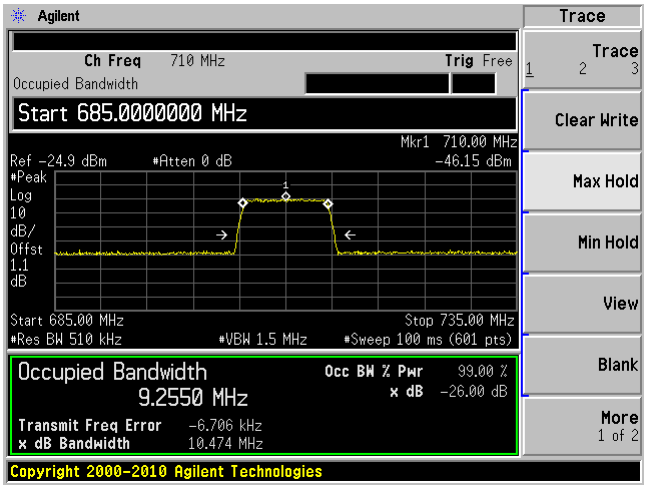


Middle O/P

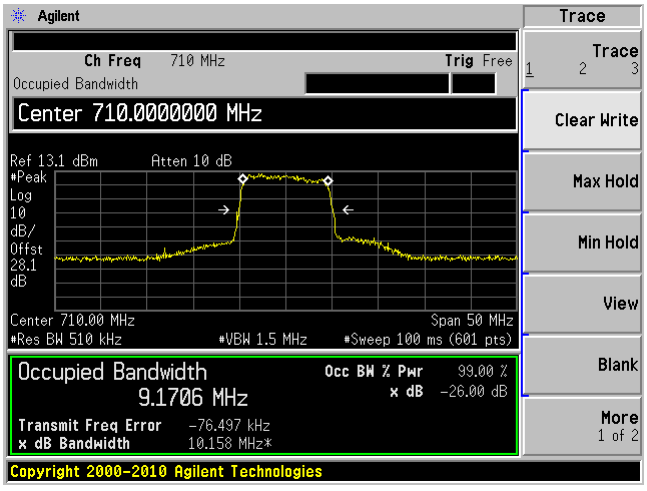


LTE Band 17, UL, 10 MHz, QPSK

Middle I/P

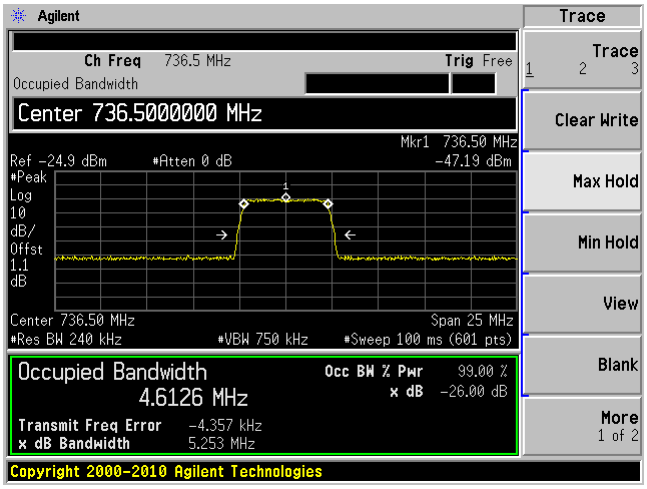


Middle O/P

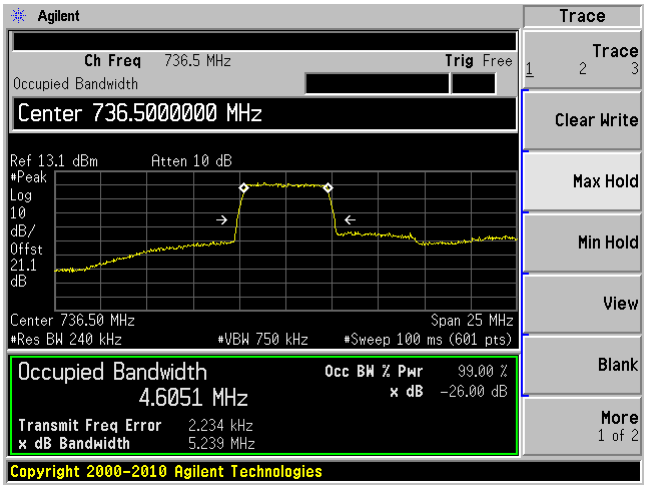


LTE Band 17, DL, 5 MHz, 16QAM

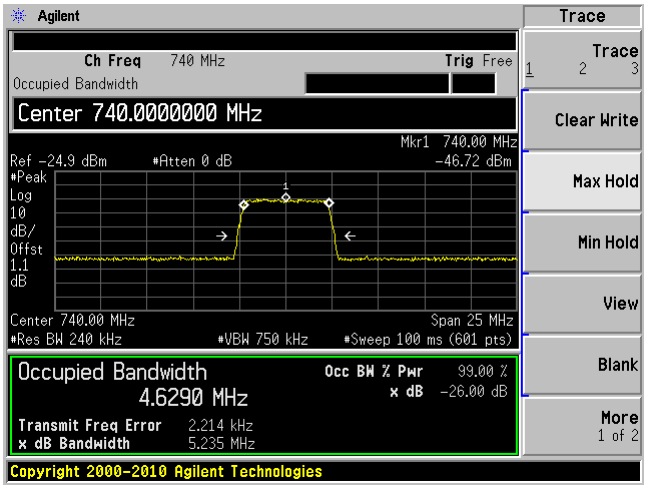
Low I/P



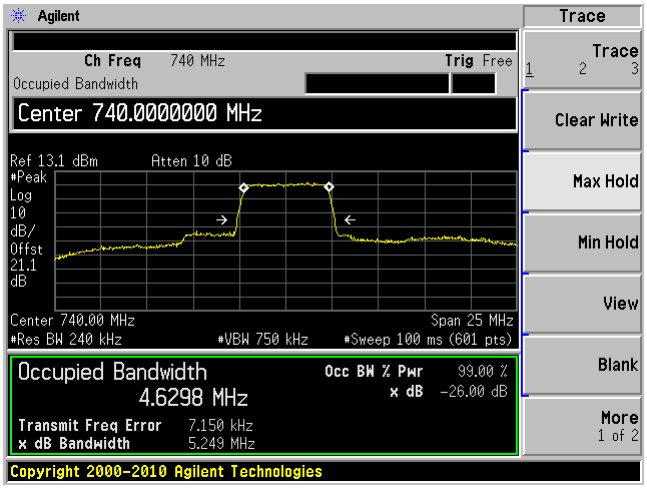
Low O/P



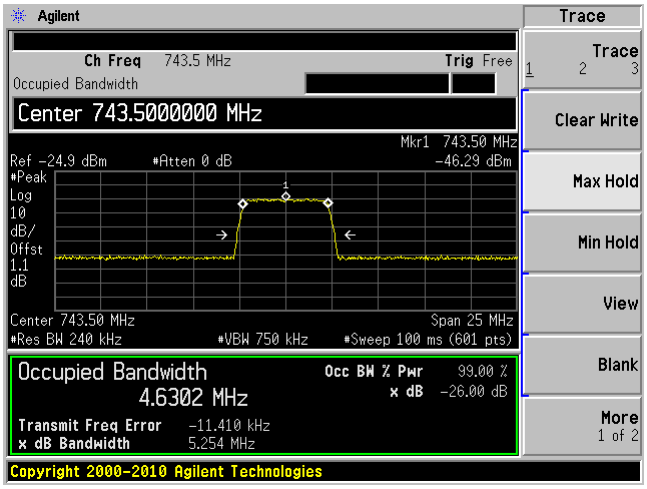
Middle I/P



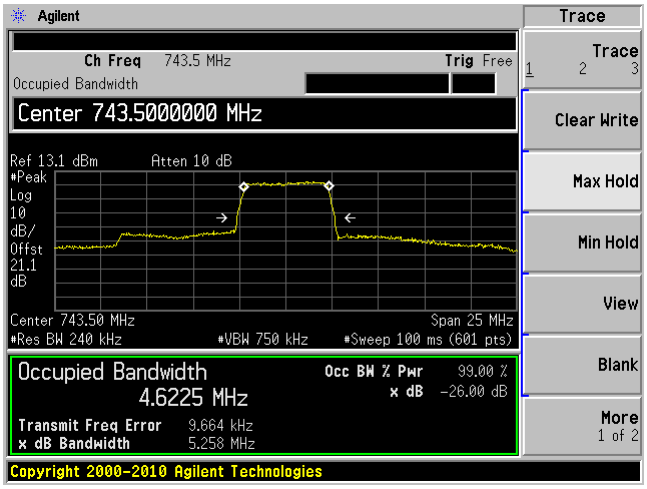
Middle O/P



High I/P

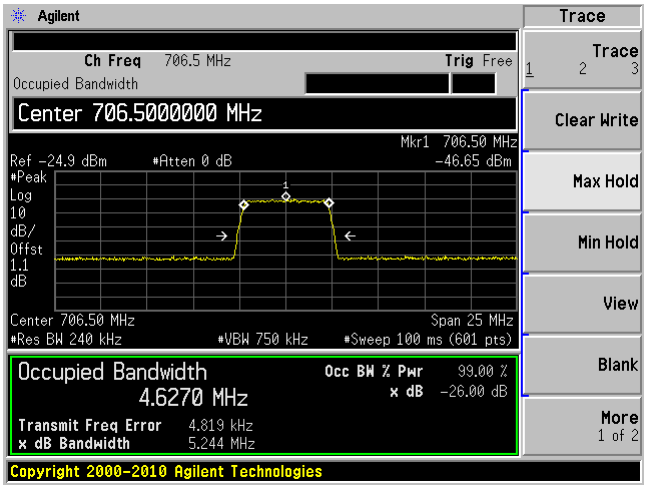


High O/P

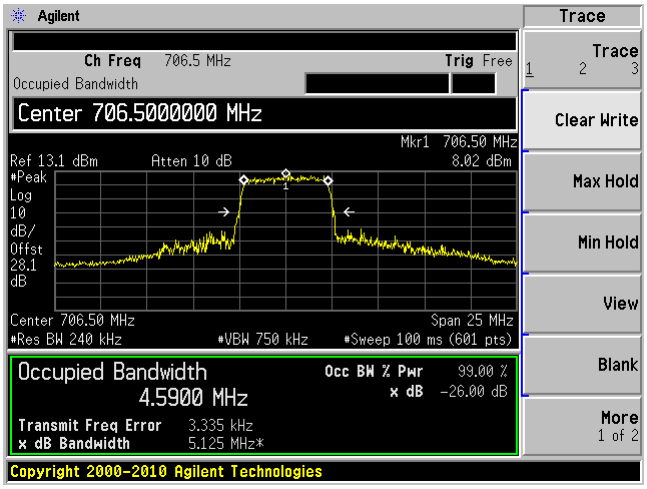


LTE Band 17, UL, 5 MHz, 16QAM

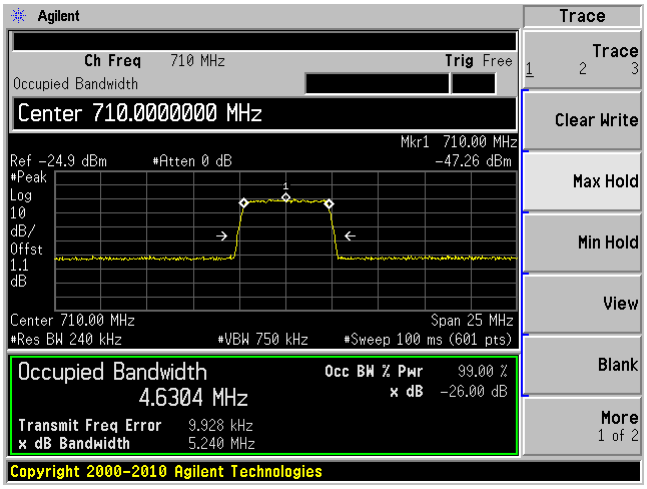
Low I/P



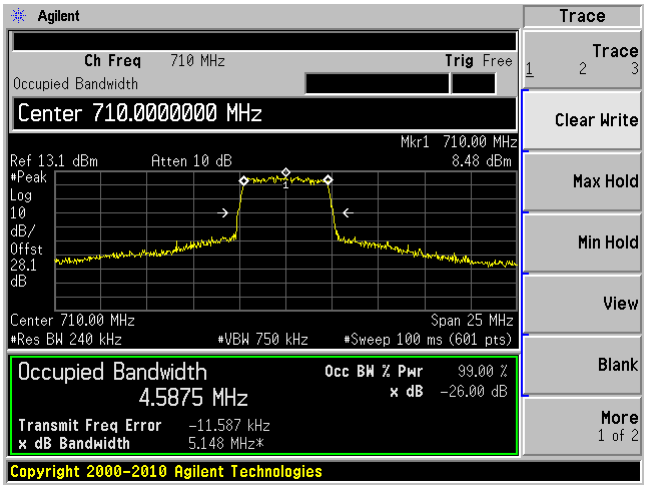
Low O/P



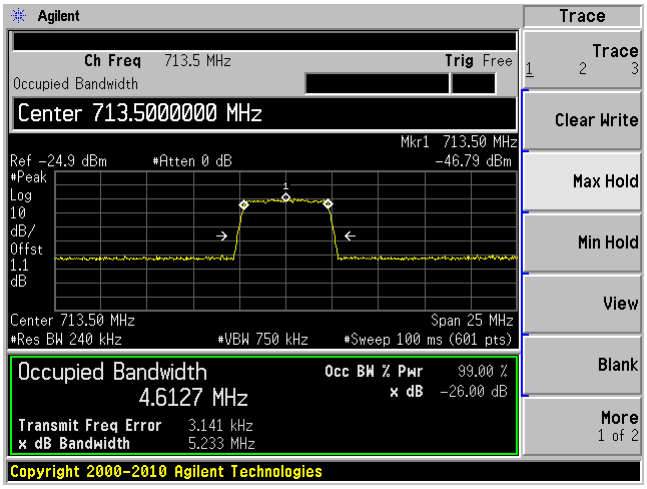
Middle I/P



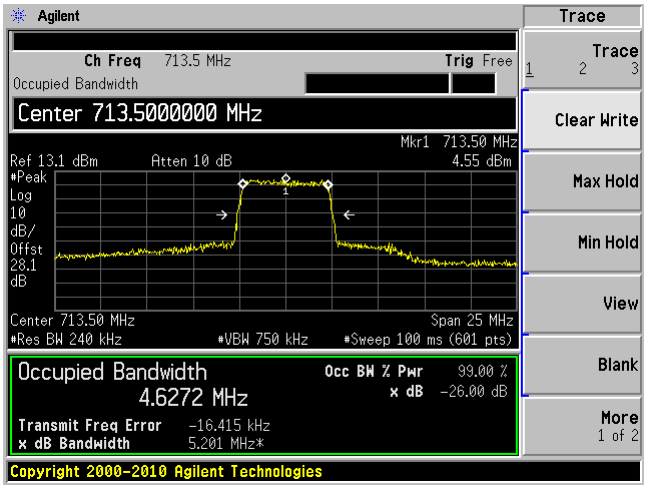
Middle O/P



High I/P

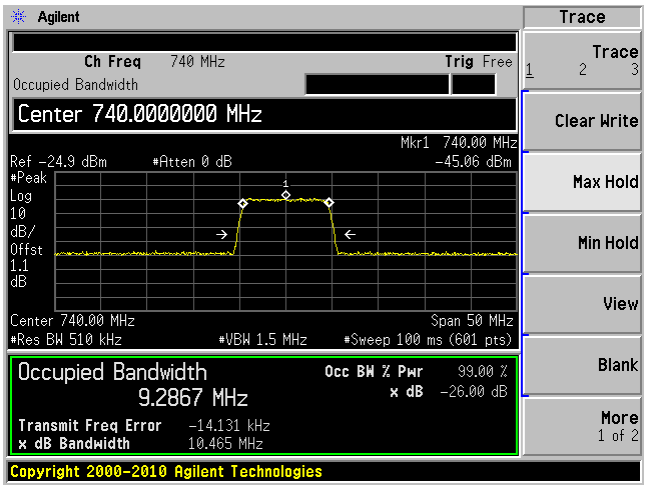


High O/P

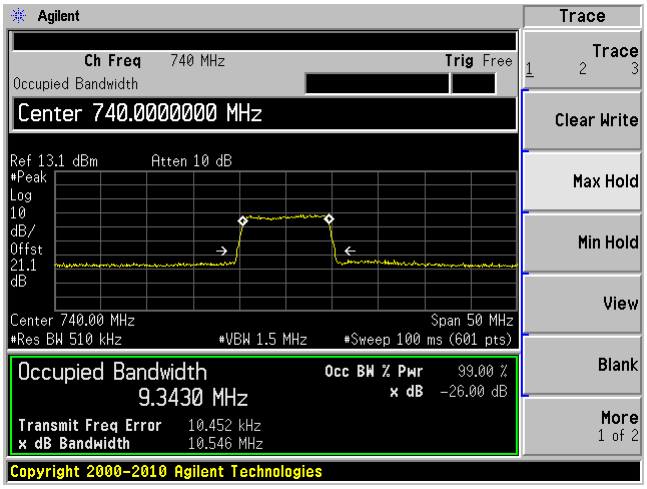


LTE Band 17, DL, 10 MHz, 16QAM

Middle I/P

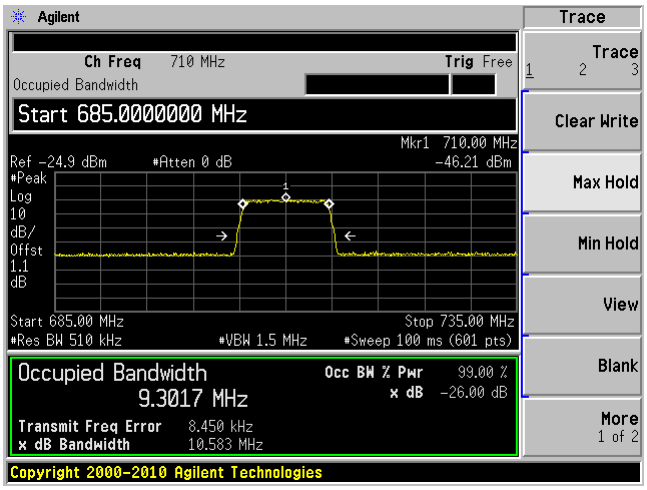


Middle O/P

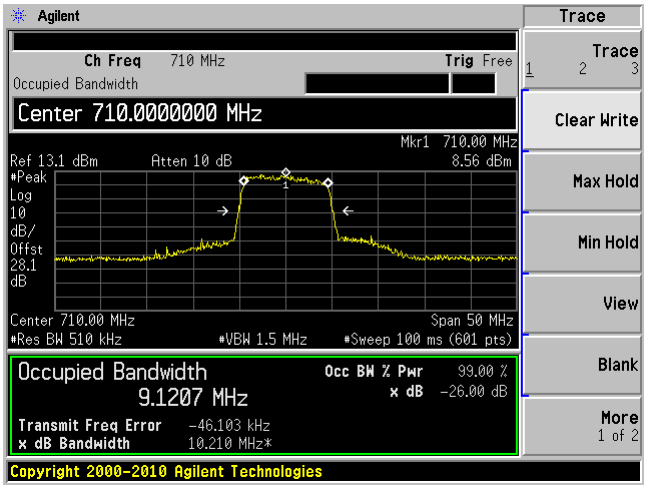


LTE Band 17, UL, 10 MHz, 16QAM

Middle I/P

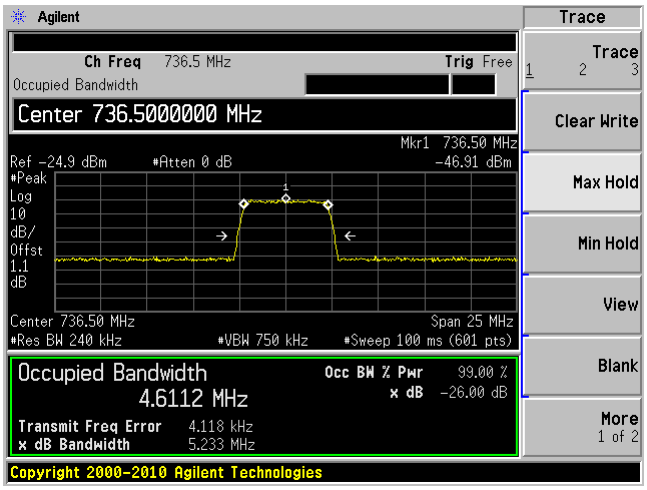


Middle O/P

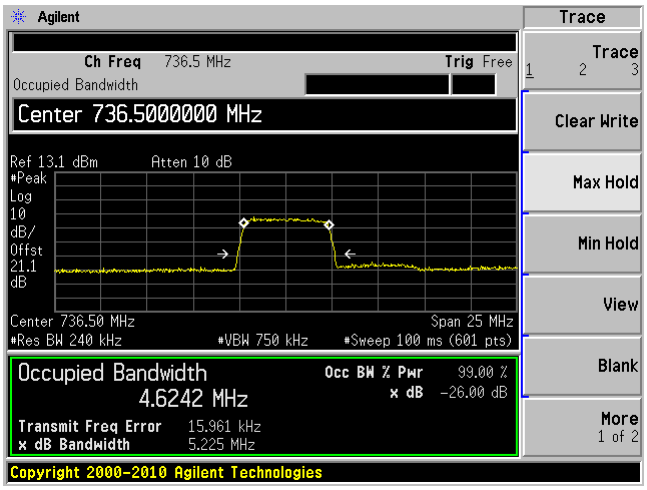


LTE Band 17, DL, 5 MHz, 64QAM

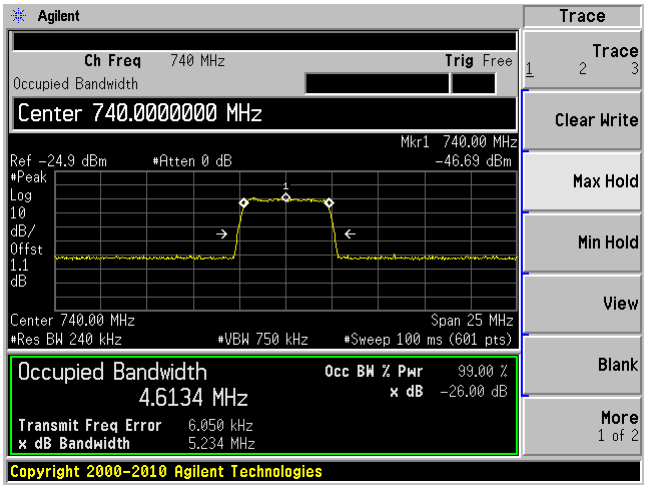
Low I/P



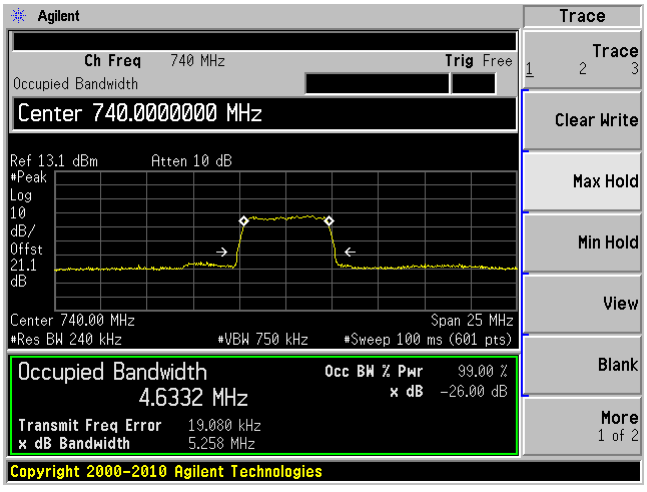
Low O/P



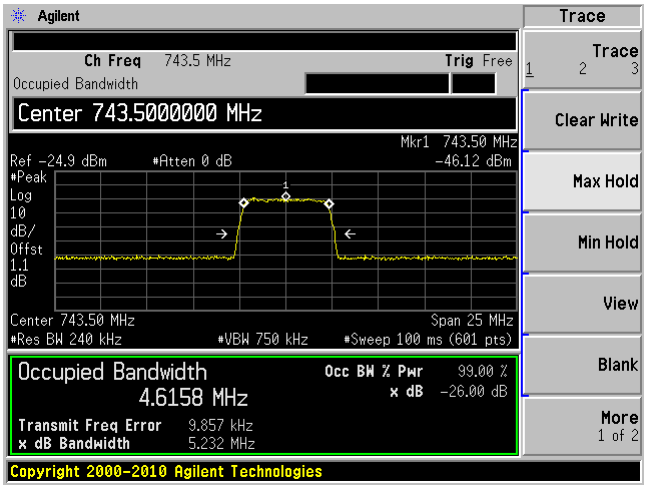
Middle I/P



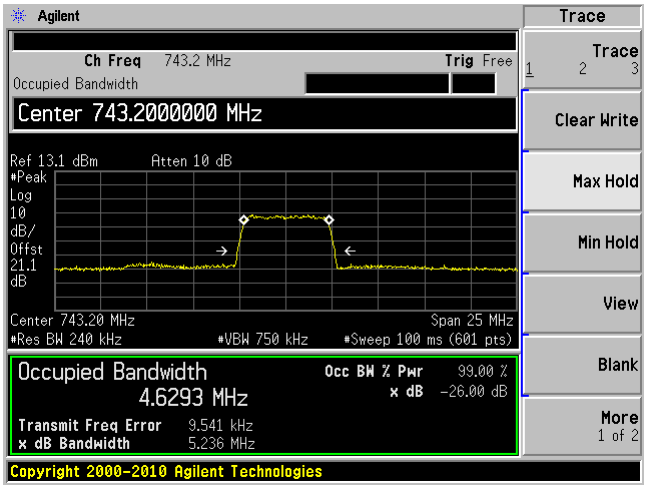
Middle O/P



High I/P

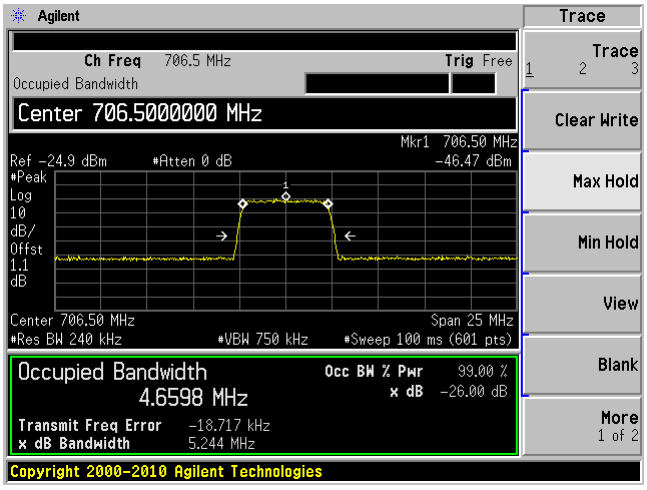


High O/P

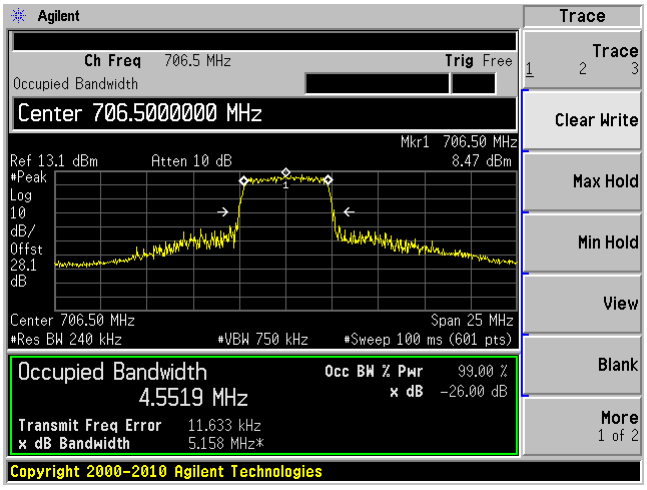


LTE Band 17, UL, 5 MHz, 64QAM

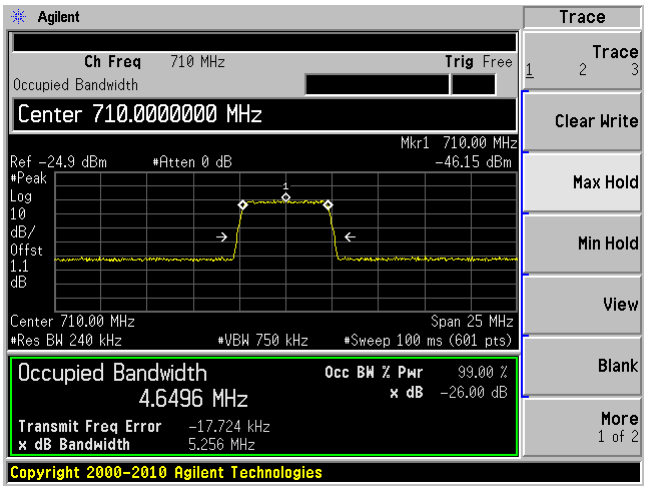
Low I/P



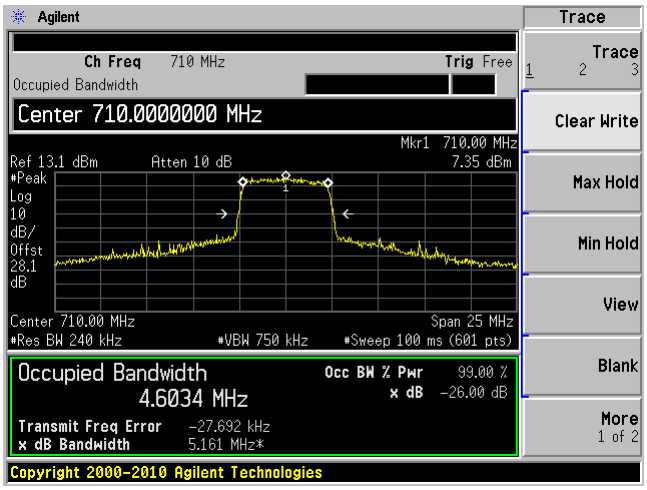
Low O/P



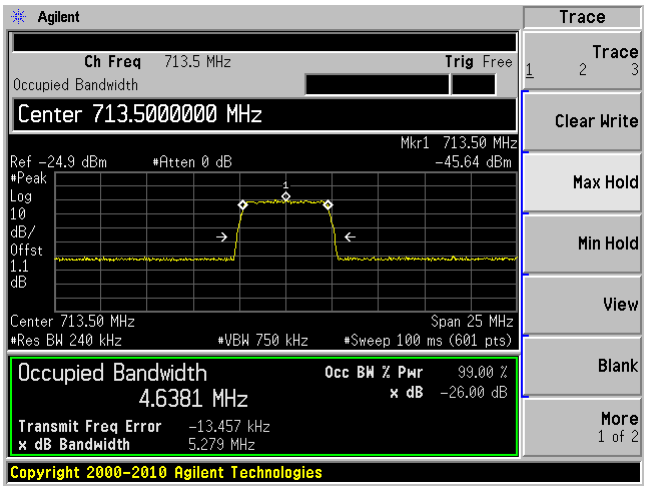
Middle I/P



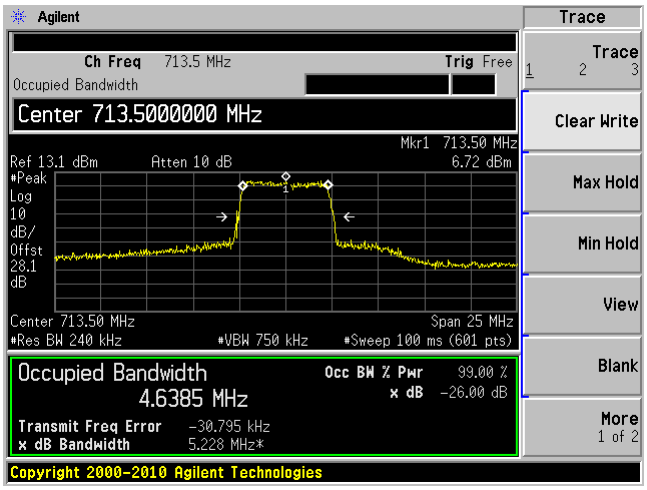
Middle O/P



High I/P

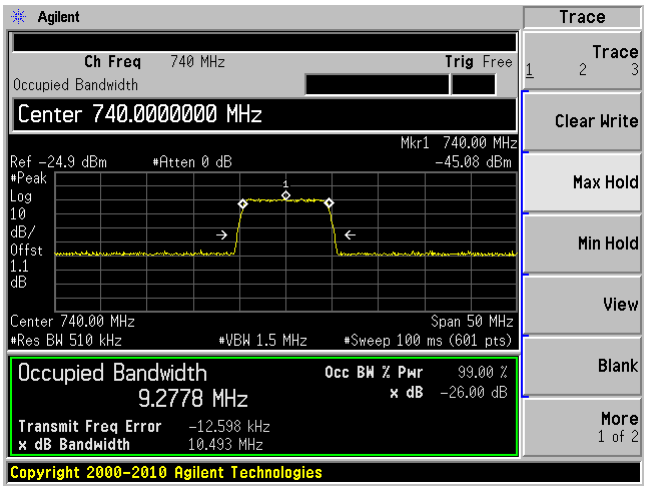


High O/P

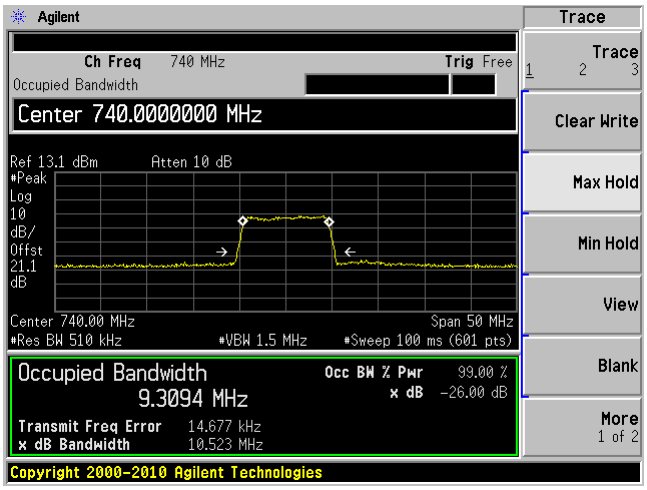


LTE Band 17, DL, 10 MHz, 64QAM

Low I/P

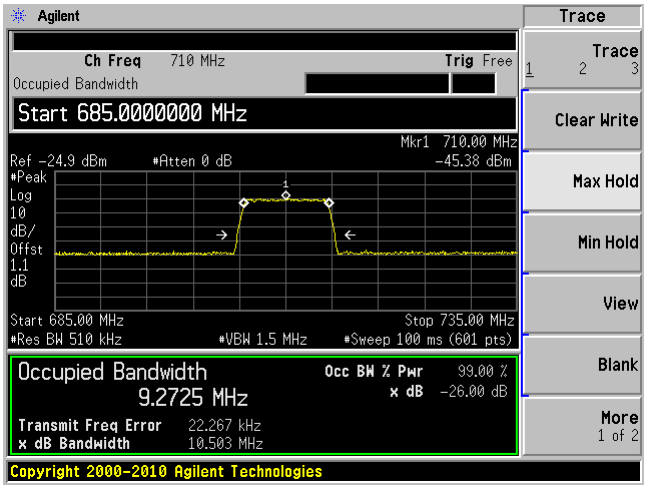


Low O/P

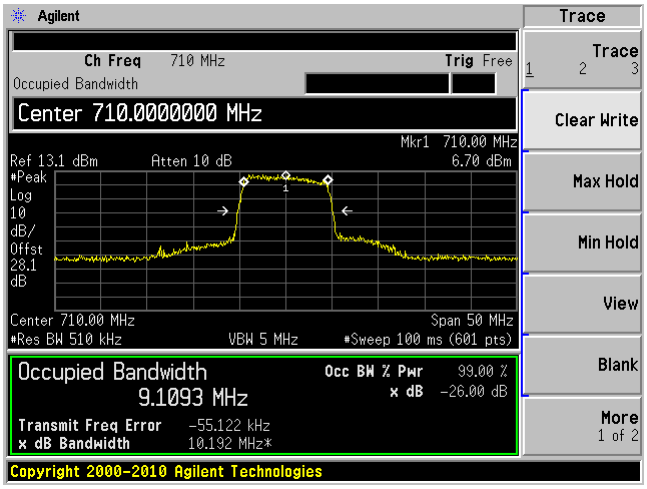


LTE Band 17, UL, 10 MHz, 64QAM

Middle I/P



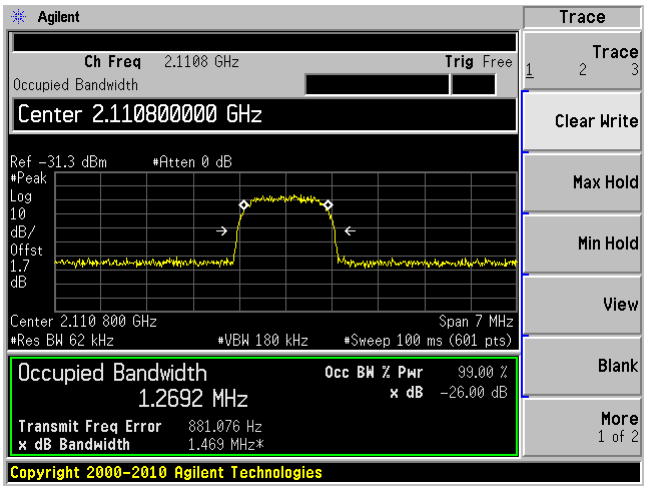
Middle O/P



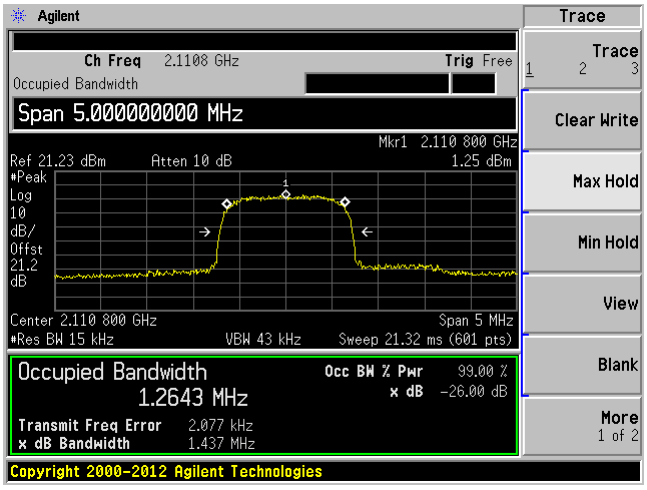
ALC ON

Band 4, CDMA/EVDO, DL

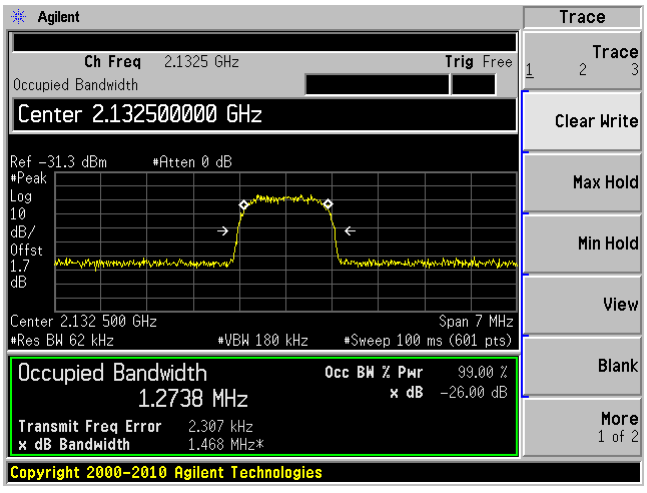
Low I/P



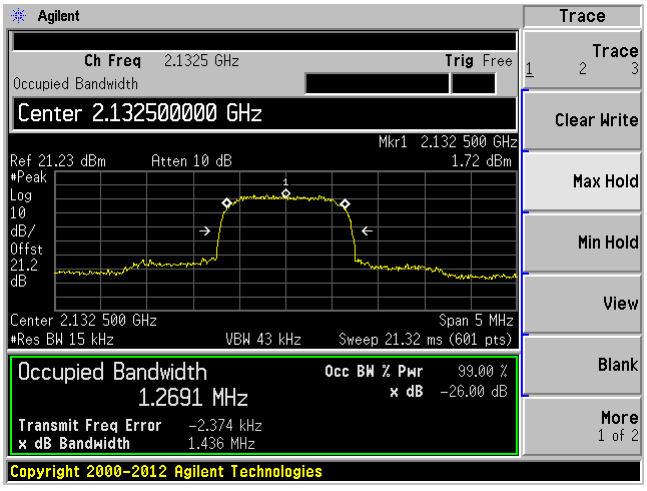
Low O/P



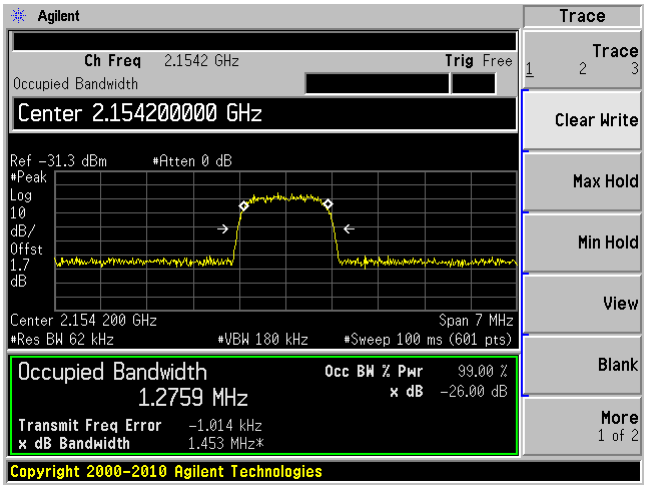
Middle I/P



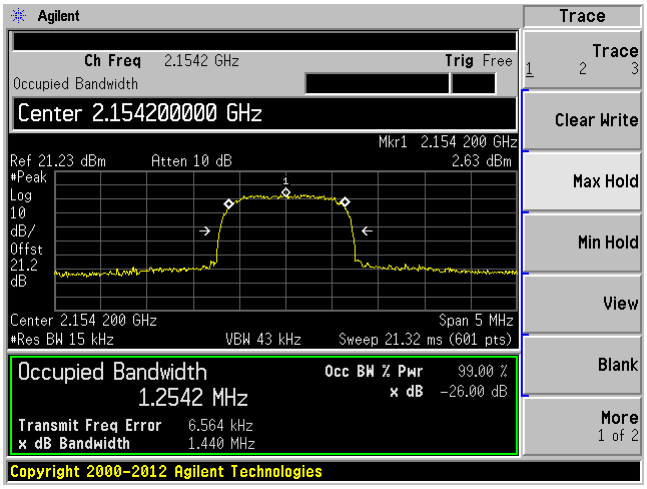
Middle O/P



High I/P

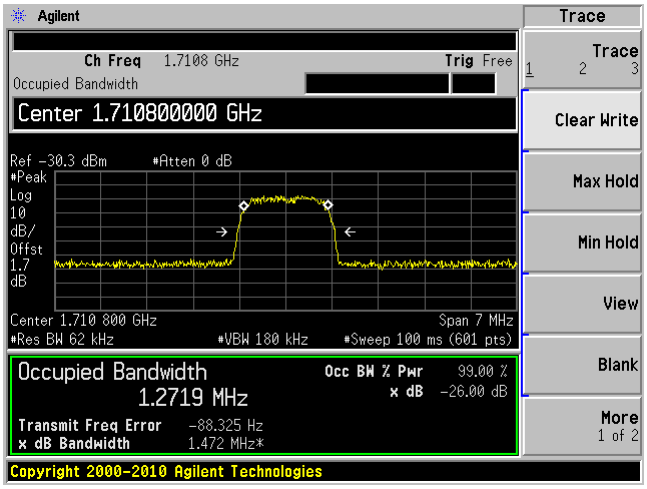


High O/P

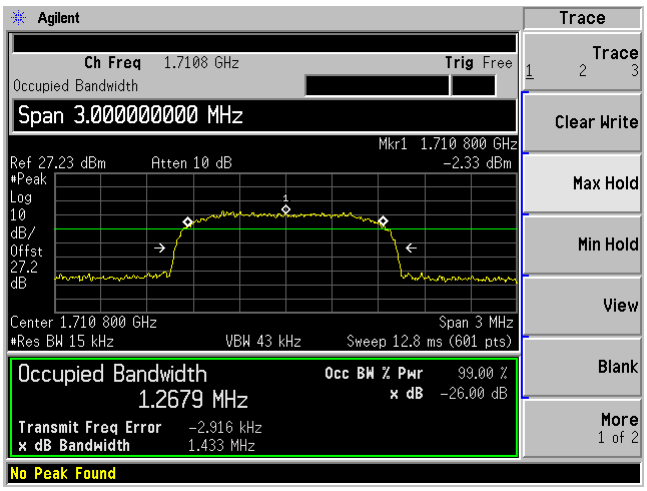


Band 4, CDMA/EVDO, UL

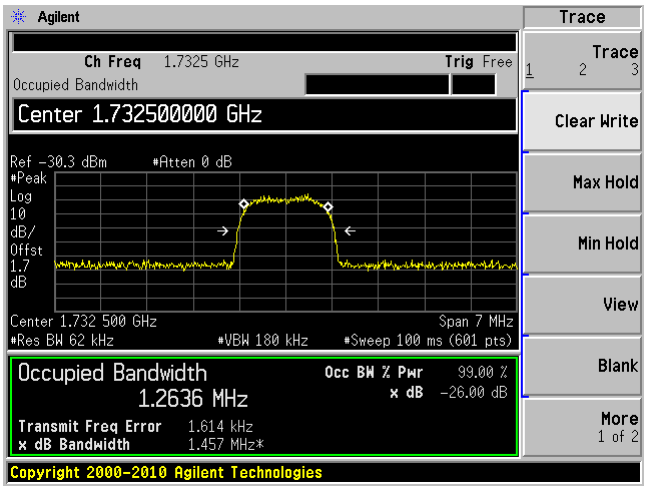
Low I/P



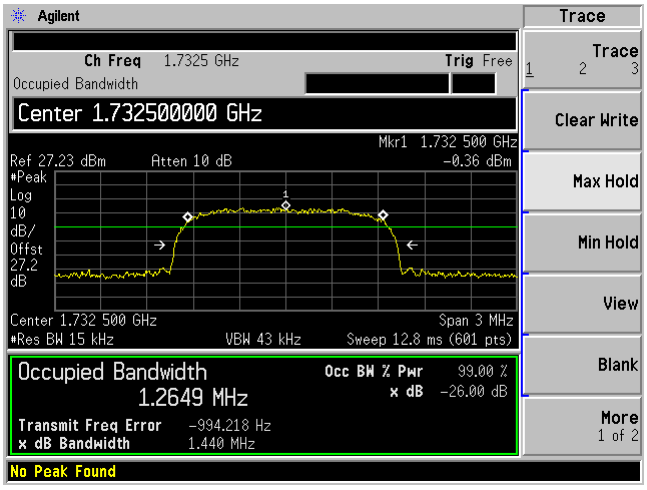
Low O/P



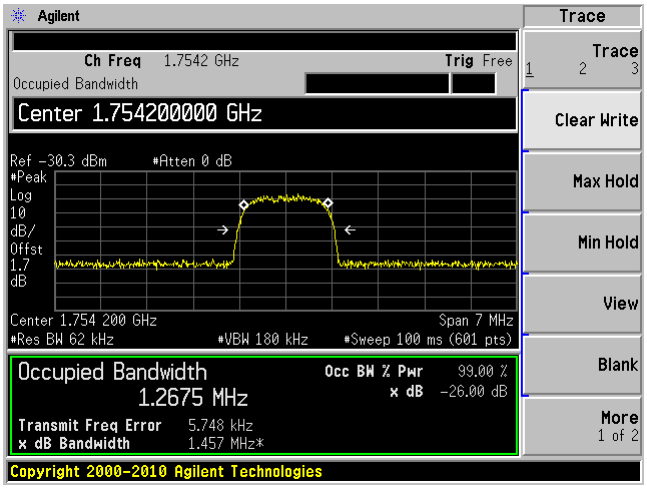
Middle I/P



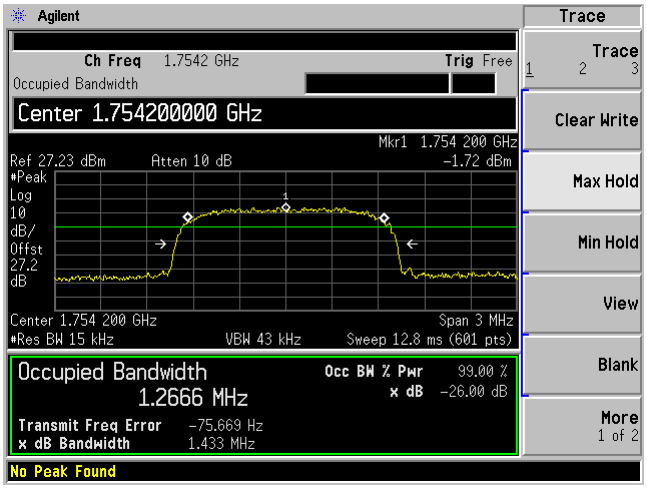
Middle O/P



High I/P

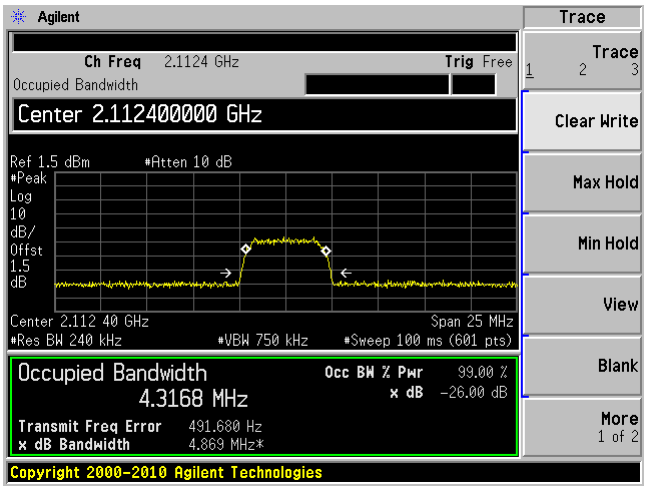


High O/P

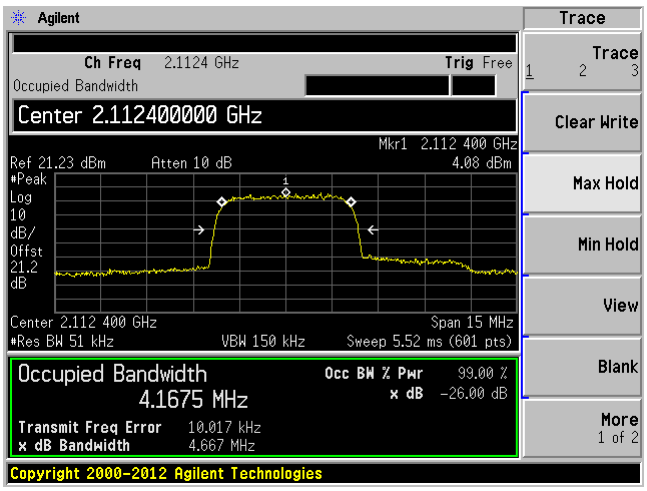


Band 4, WCDMA, DL

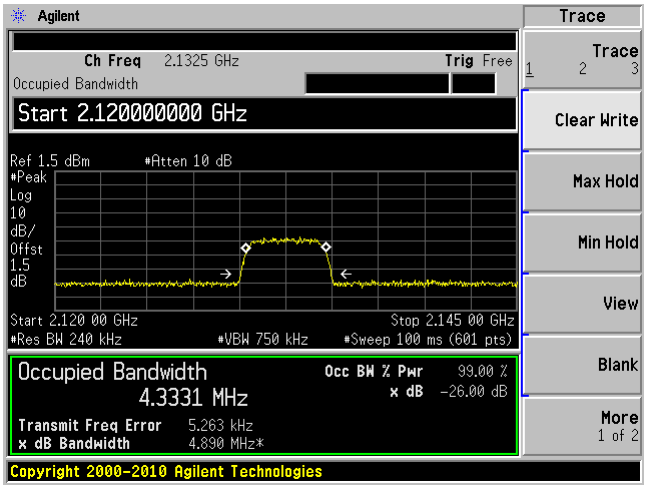
Low I/P



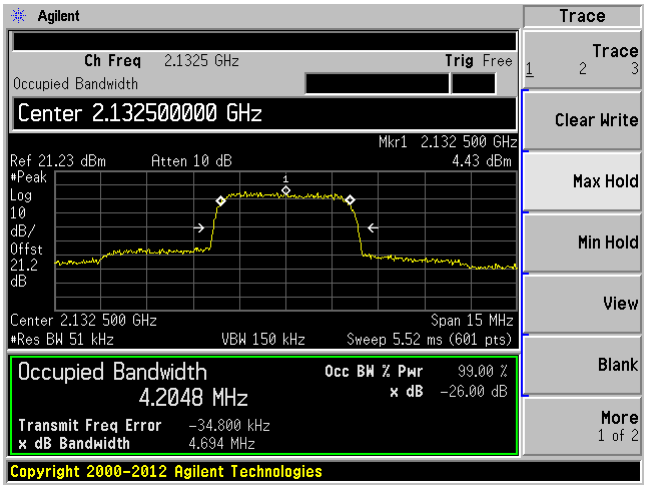
Low O/P



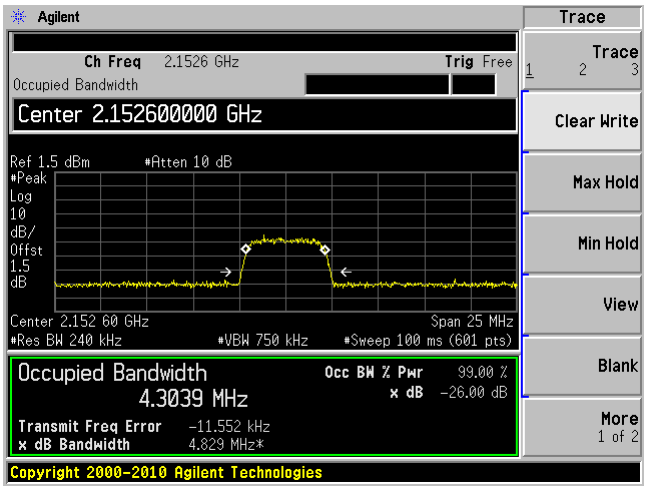
Middle I/P



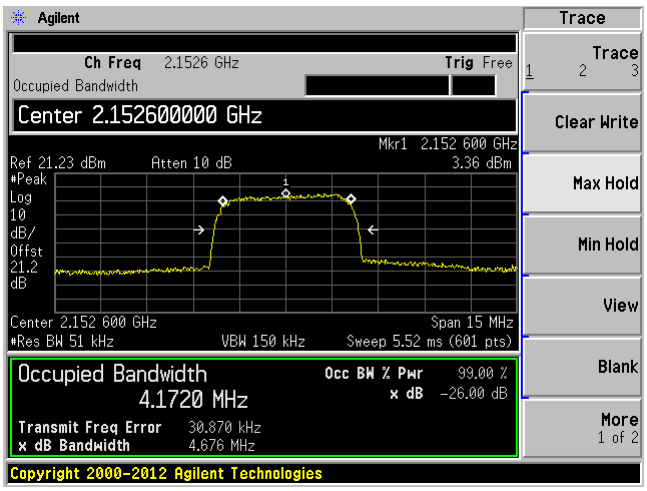
Middle O/P



High I/P

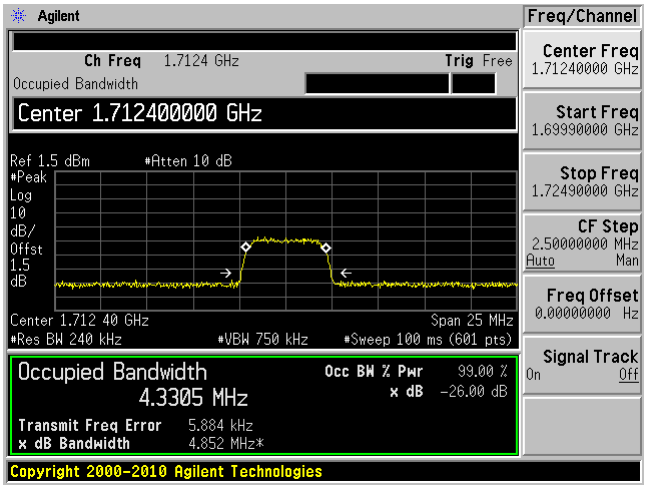


High O/P

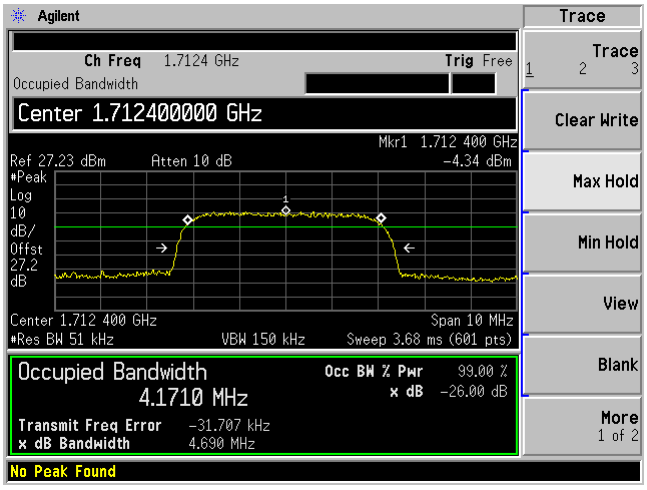


Band 4, WCDMA, UL

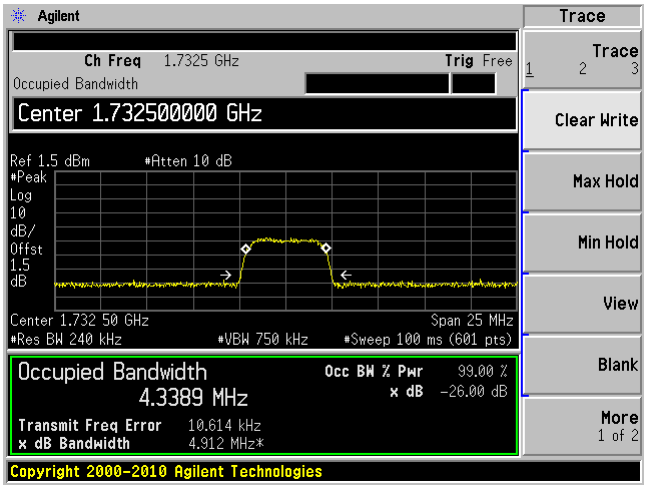
Low I/P



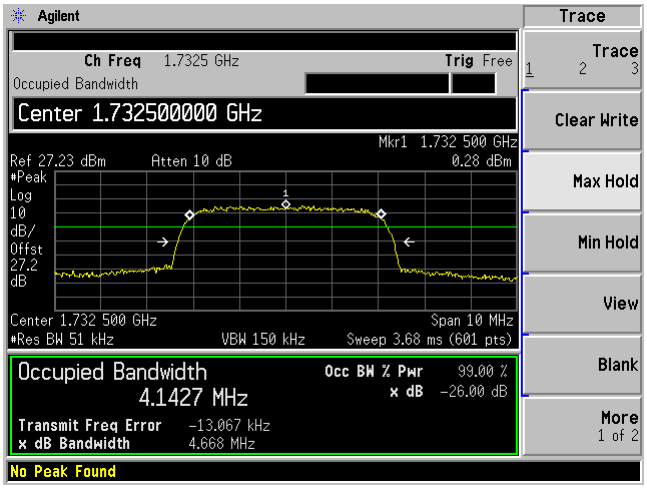
Low O/P



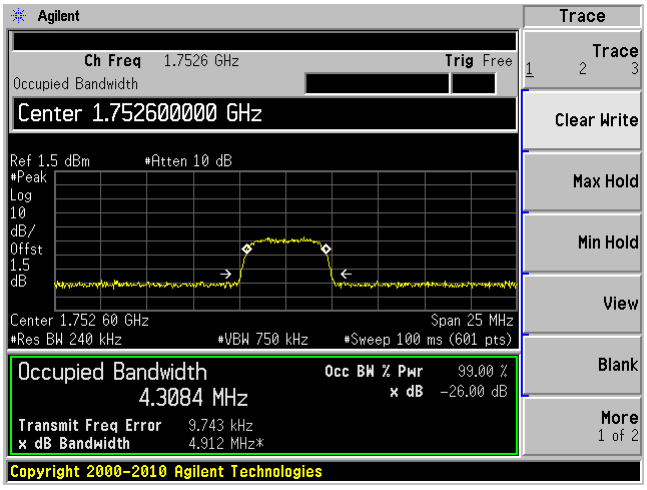
Middle I/P



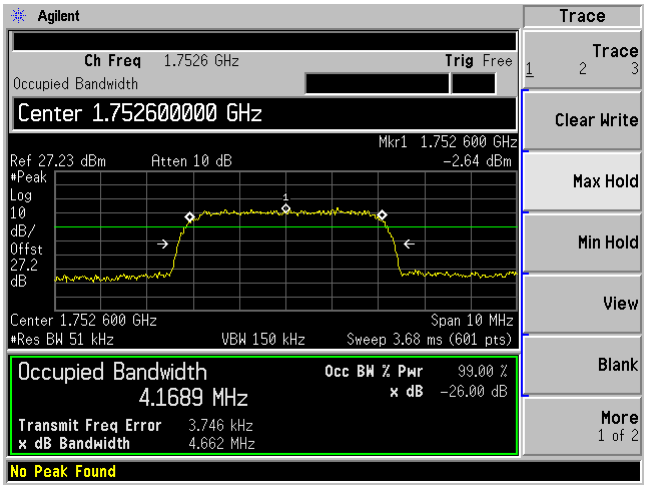
Middle O/P



High I/P

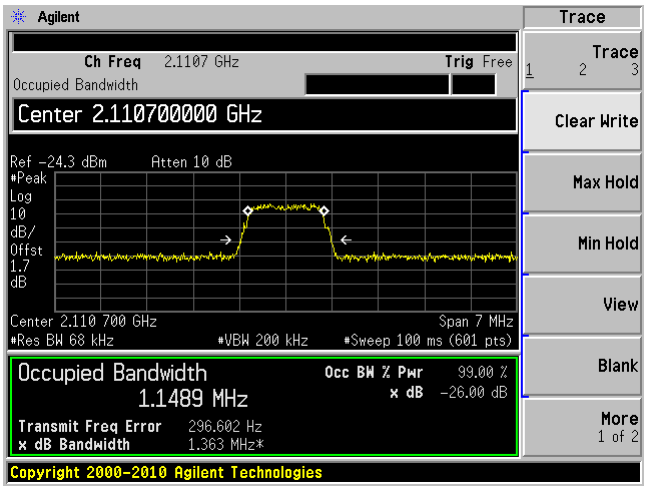


High O/P

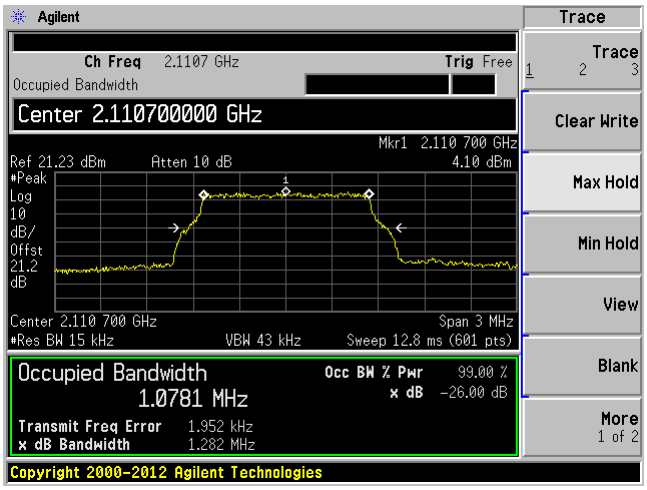


LTE Band 4, DL, 1.4 MHz, QPSK

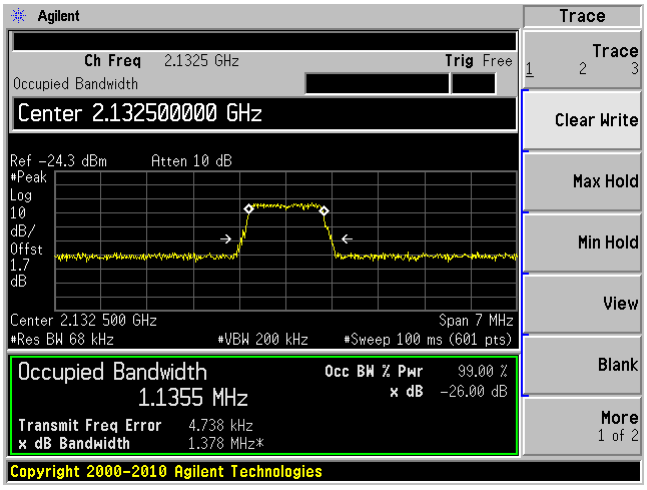
Low I/P



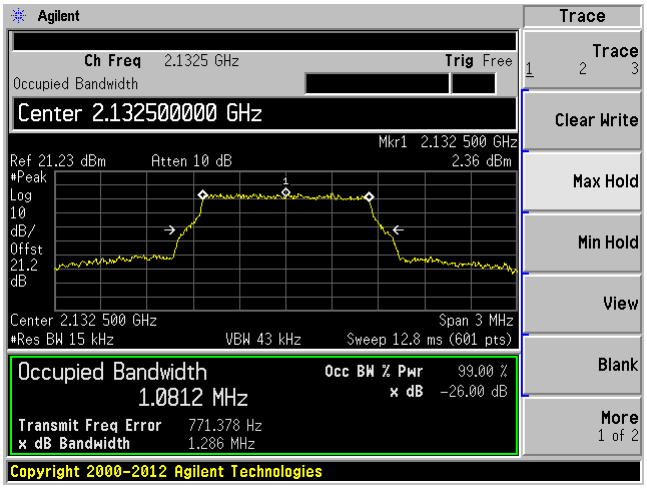
Low O/P



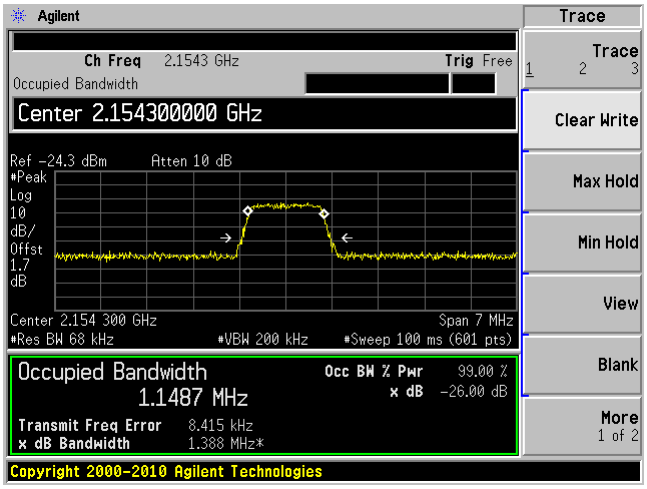
Middle I/P



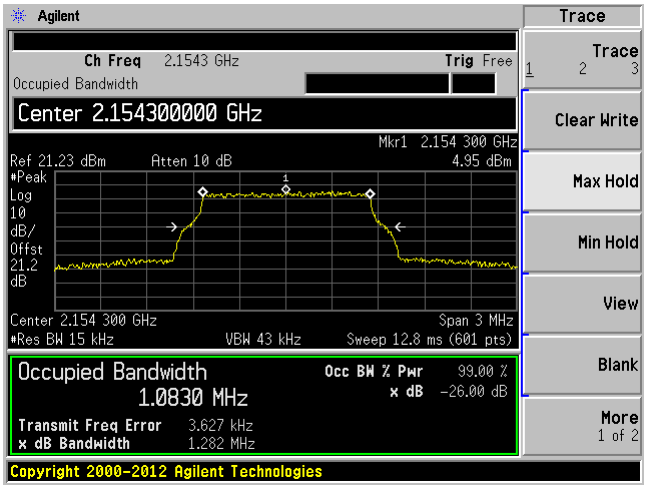
Middle O/P



High I/P

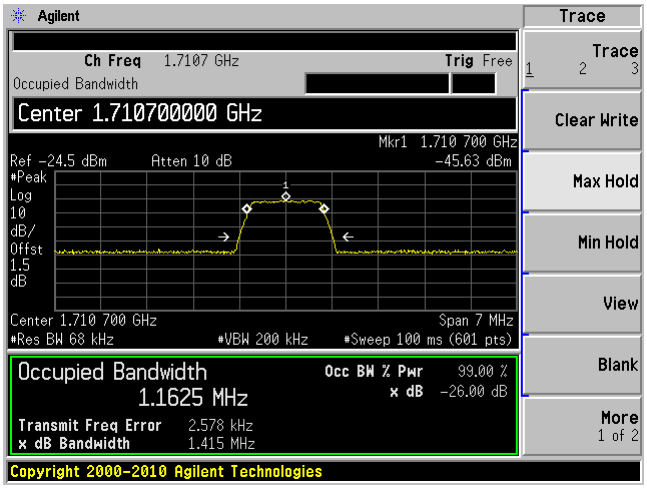


High O/P

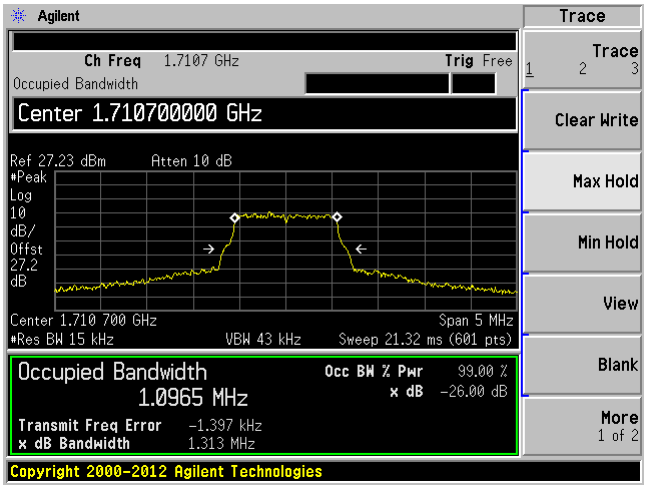


LTE Band 4, UL, 1.4MHz, QPSK

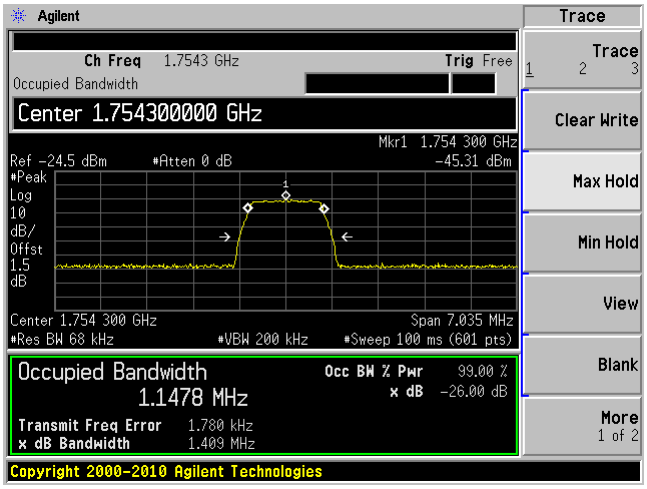
Low I/P



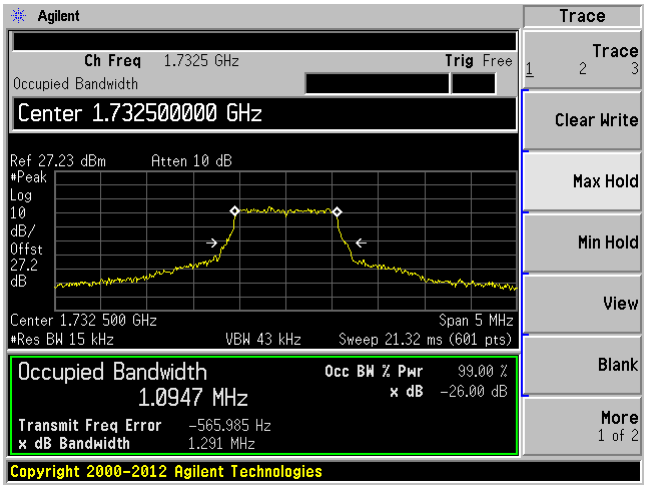
Low O/P



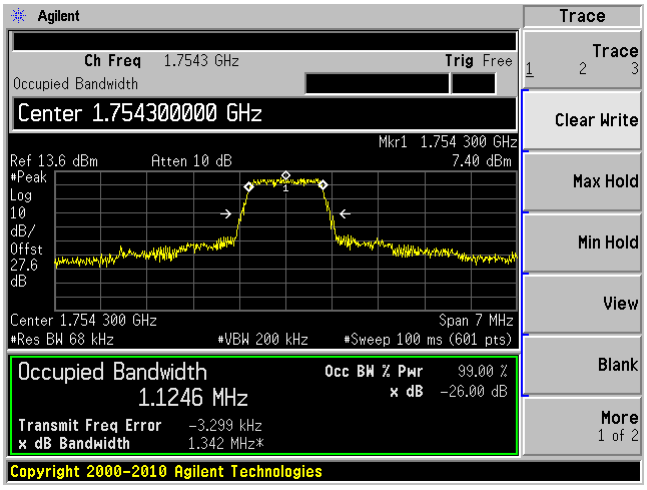
Middle I/P



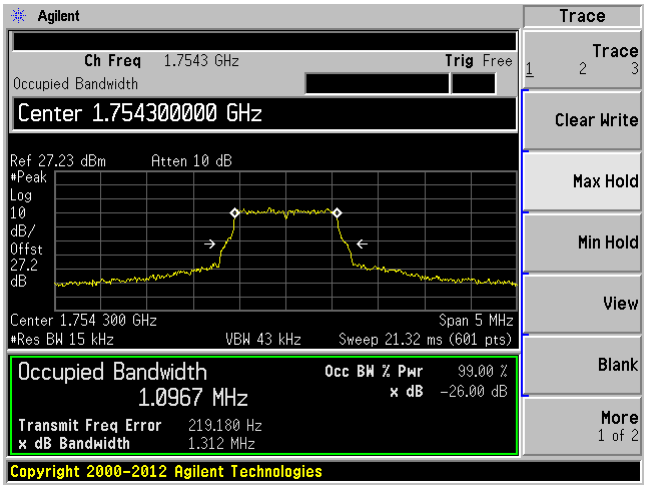
Middle O/P



High I/P

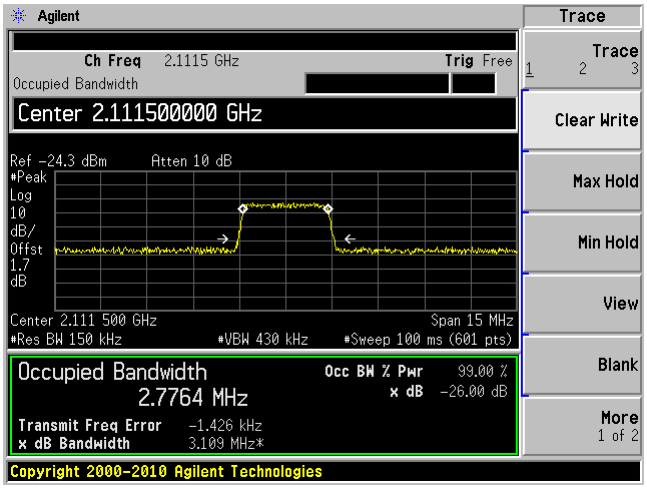


High O/P

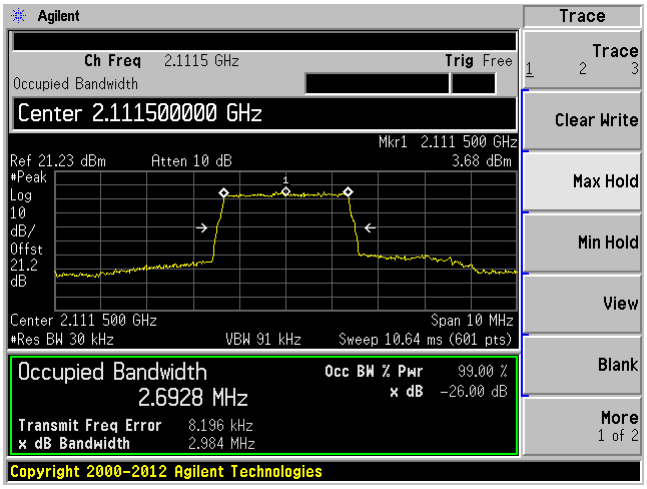


LTE Band 4, DL, 3 MHz, QPSK

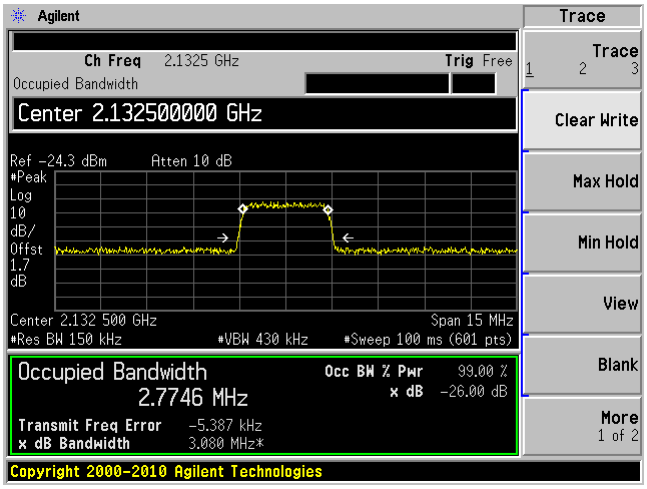
Low I/P



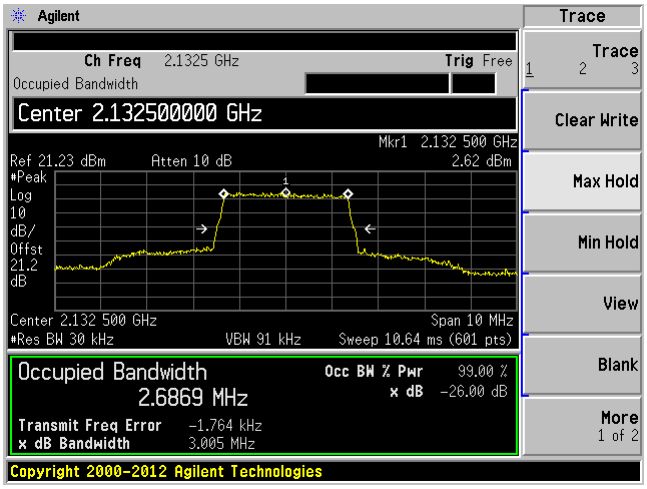
Low O/P



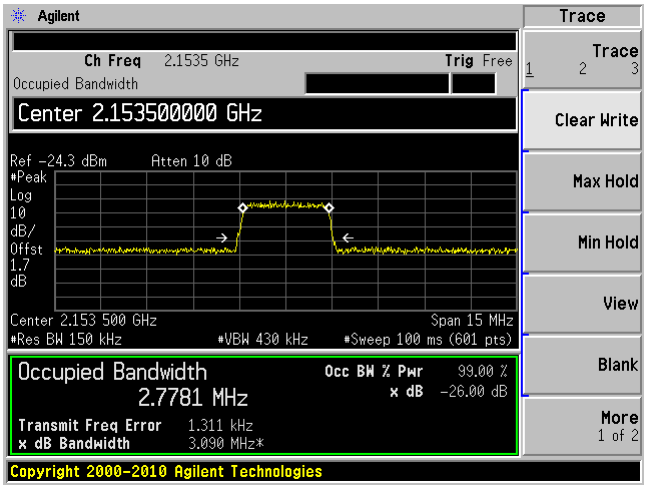
Middle I/P



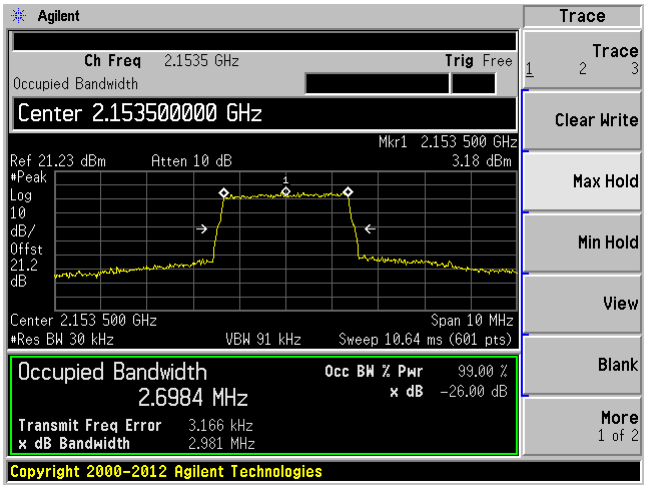
Middle O/P



High I/P

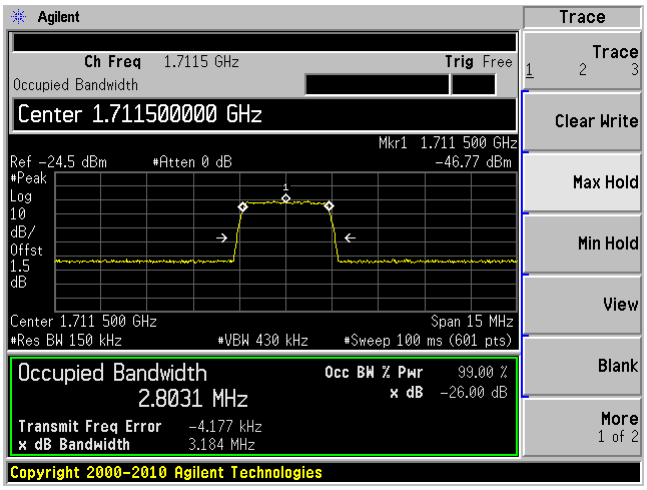


High O/P

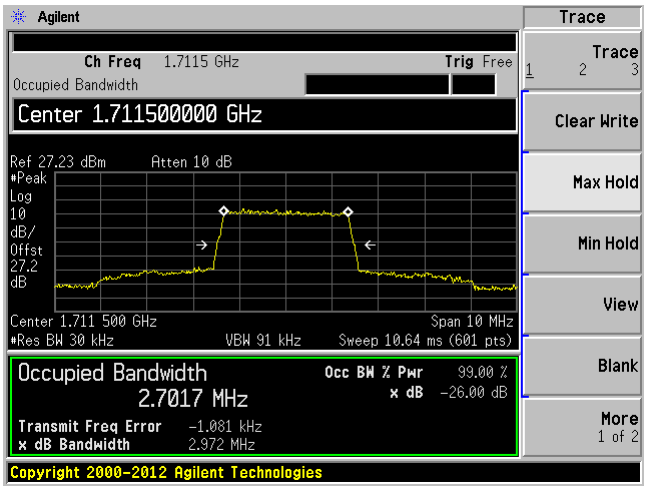


LTE Band 4, UL, 3 MHz, QPSK

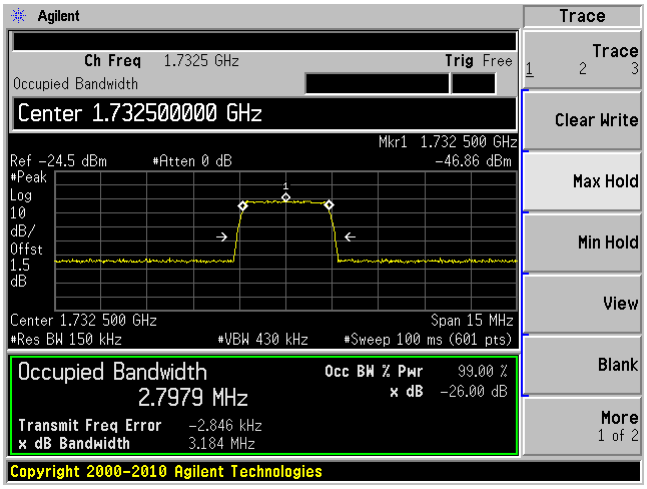
Low I/P



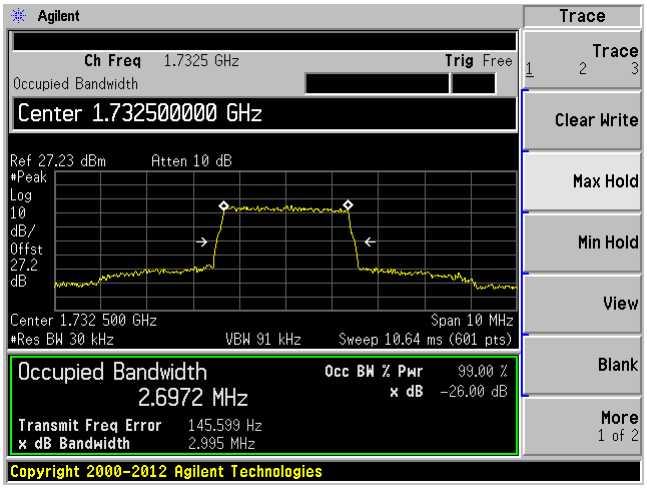
Low O/P



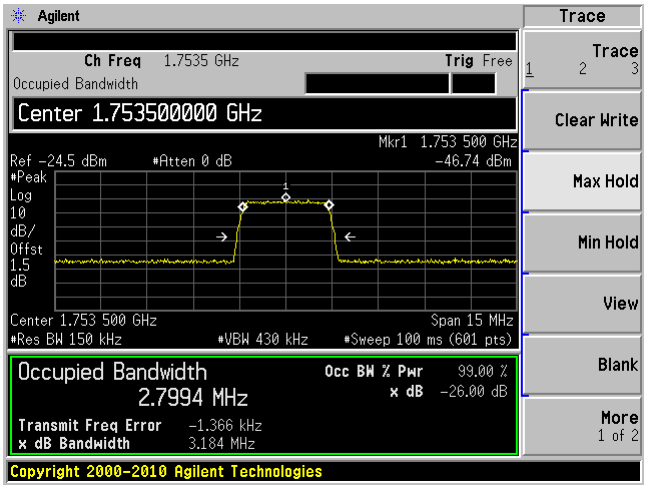
Middle I/P



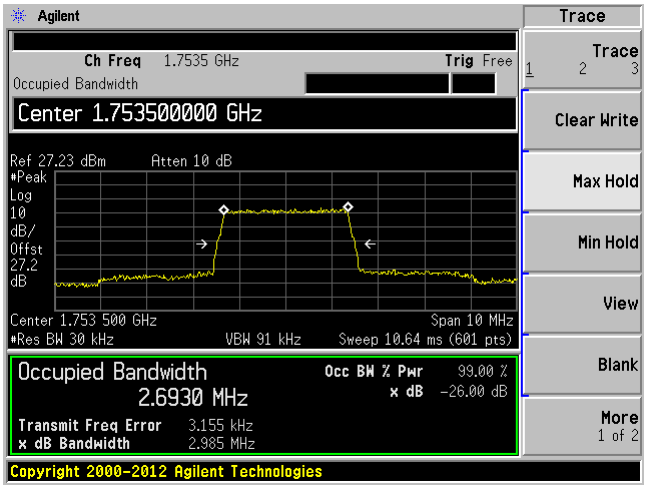
Middle O/P



High I/P

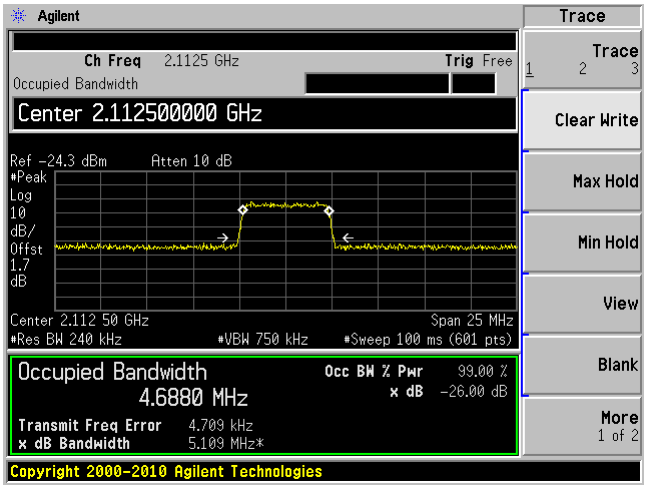


High O/P

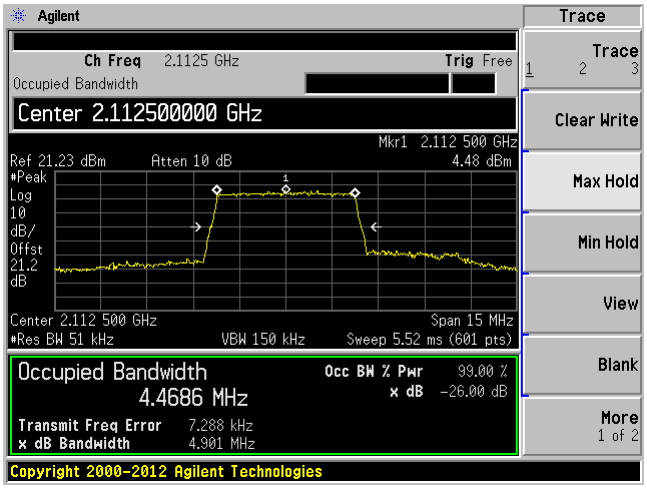


LTE Band 4, DL, 5 MHz, QPSK

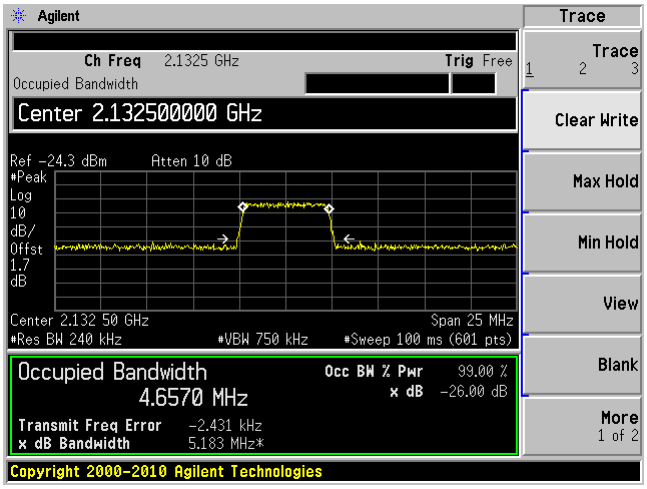
Low I/P



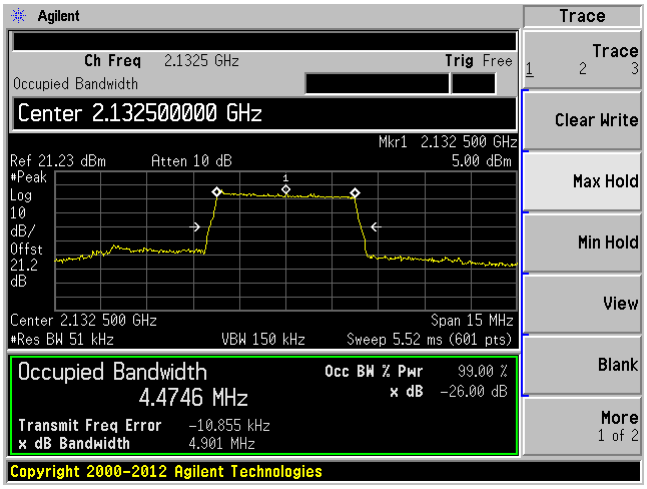
Low O/P



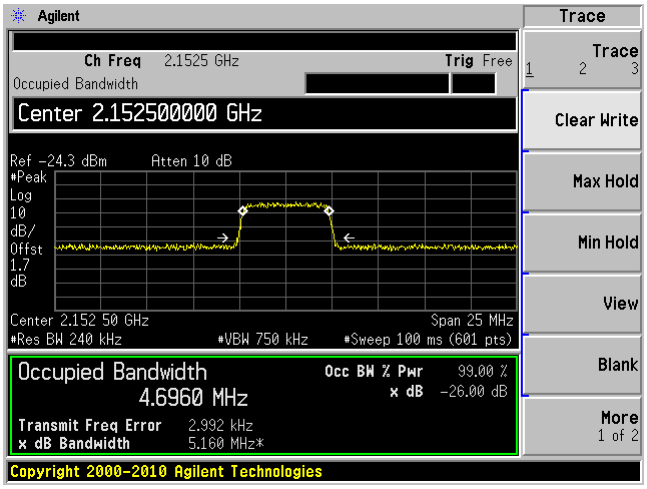
Middle I/P



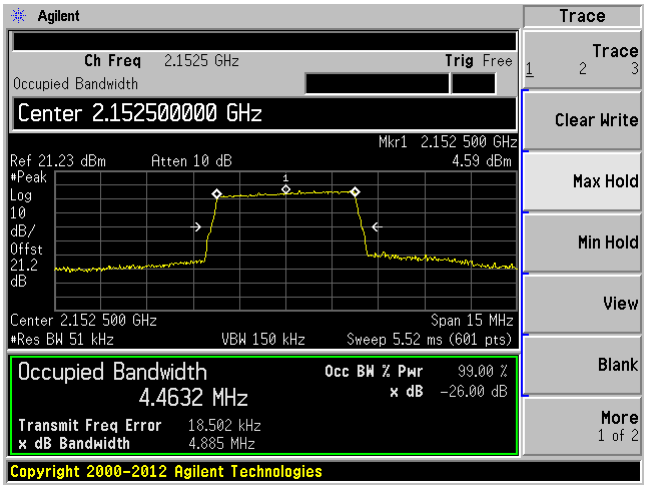
Middle O/P



High I/P

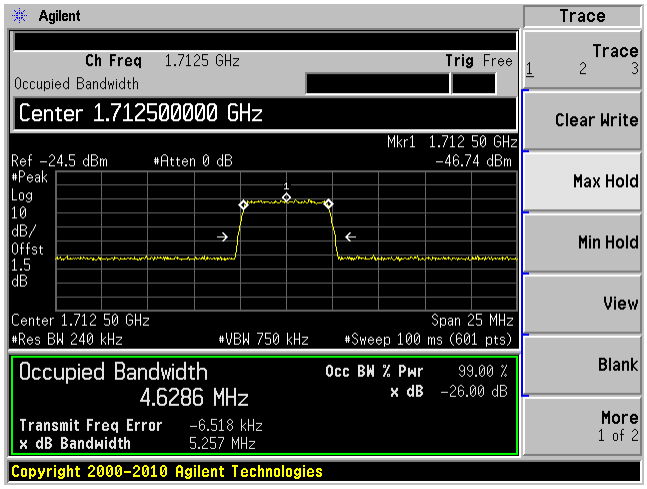


High O/P

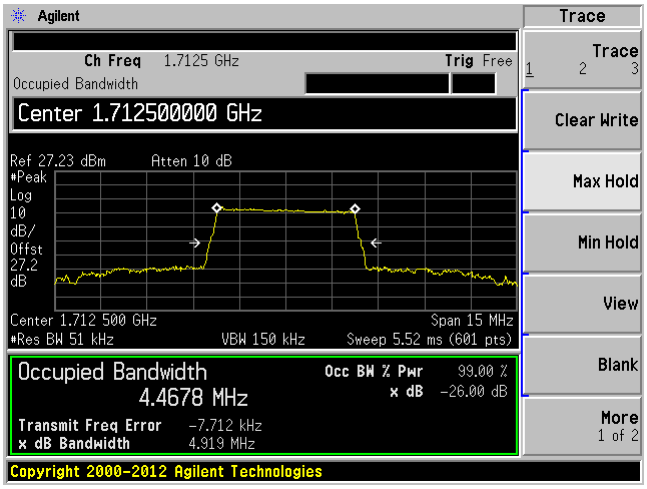


LTE Band 4, UL, 5 MHz, QPSK

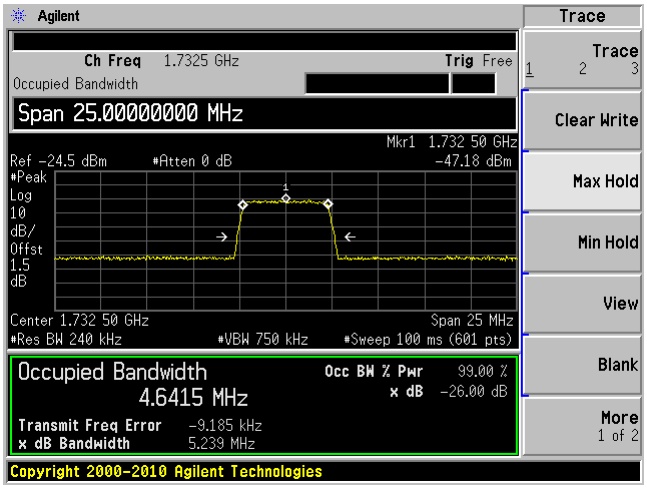
Low I/P



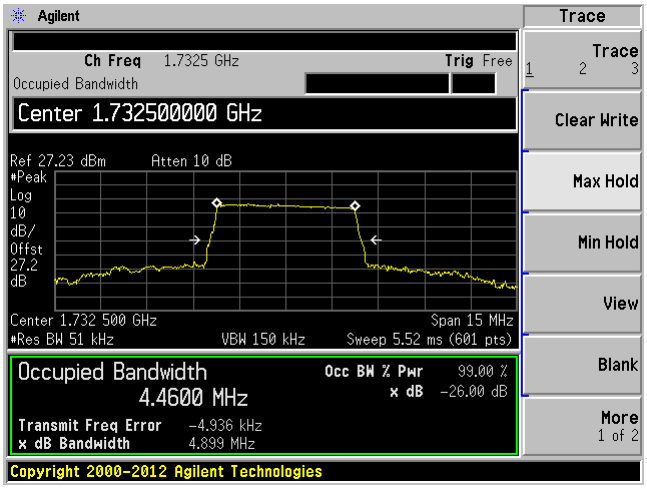
Low O/P



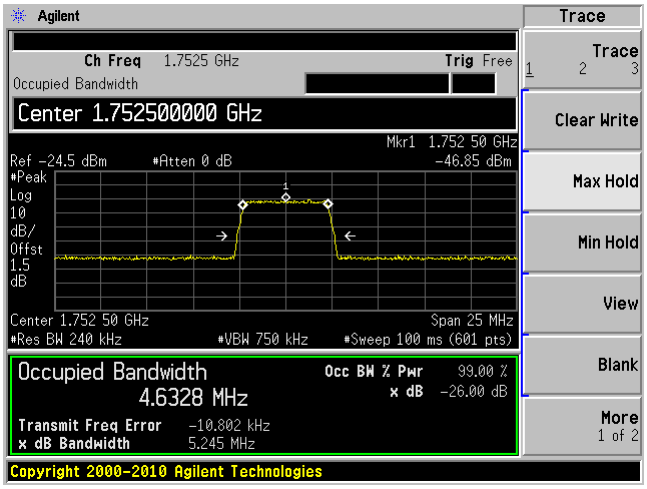
Middle I/P



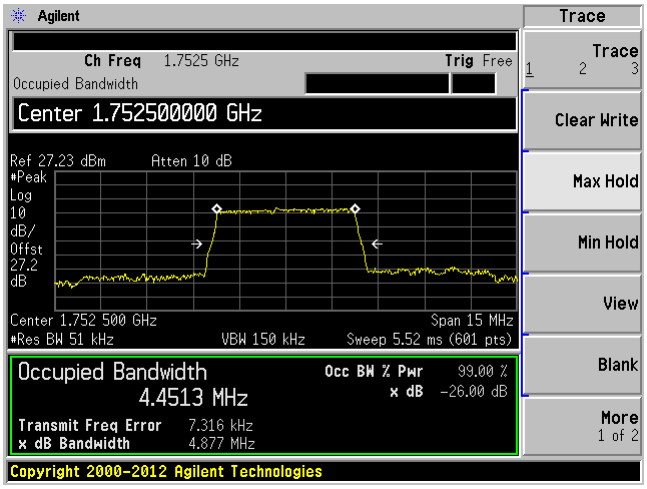
Middle O/P



High I/P

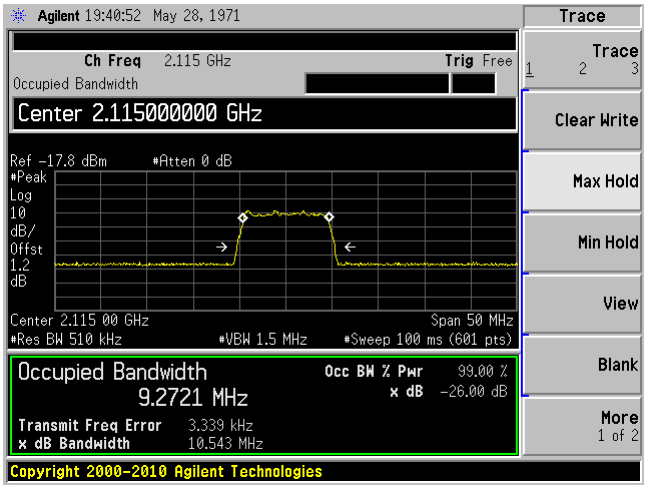


High O/P

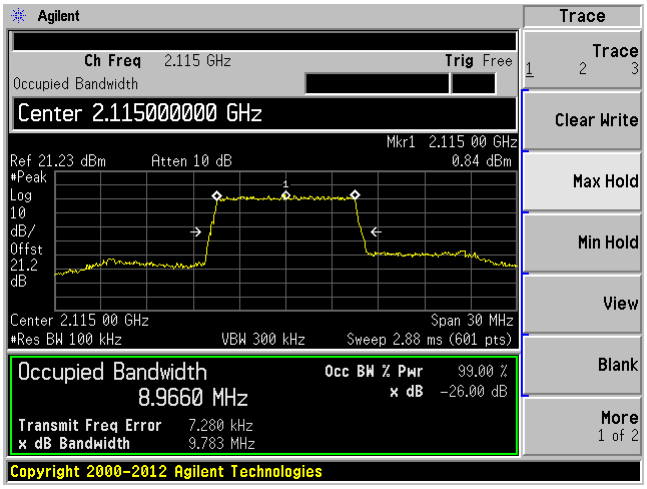


LTE Band 4, DL, 10 MHz, QPSK

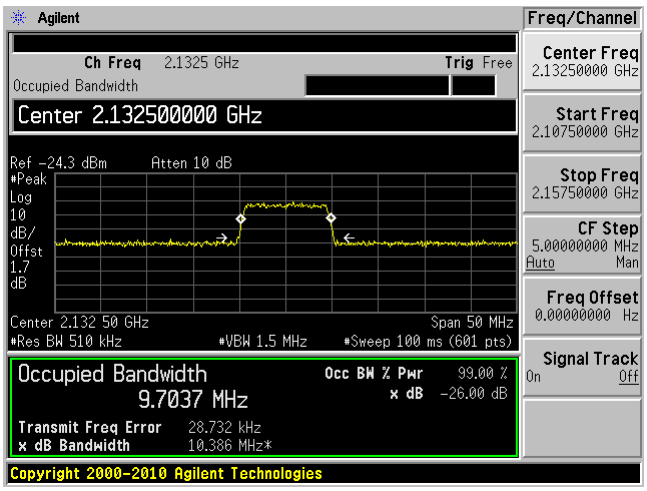
Low I/P



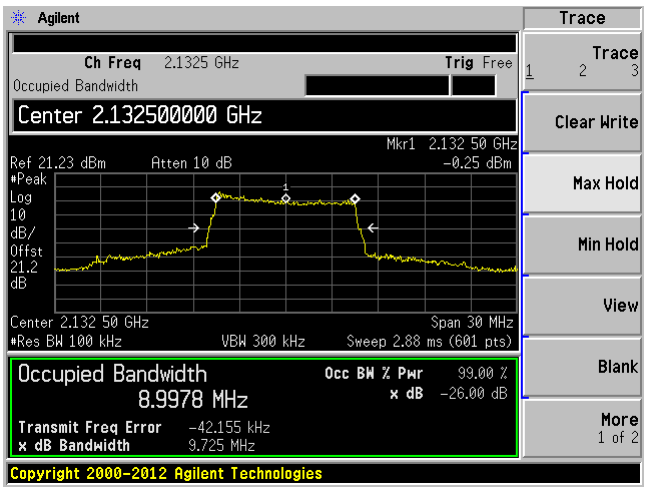
Low O/P



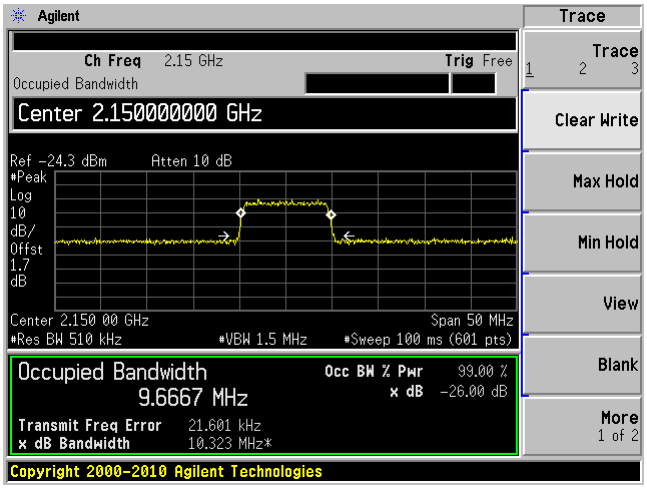
Middle I/P



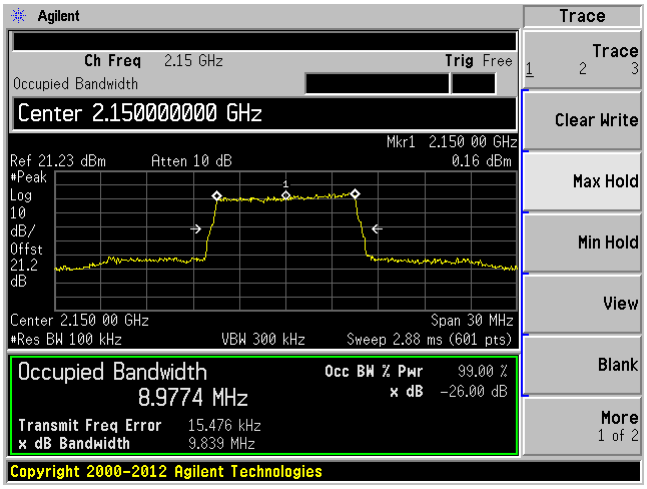
Middle O/P



High I/P

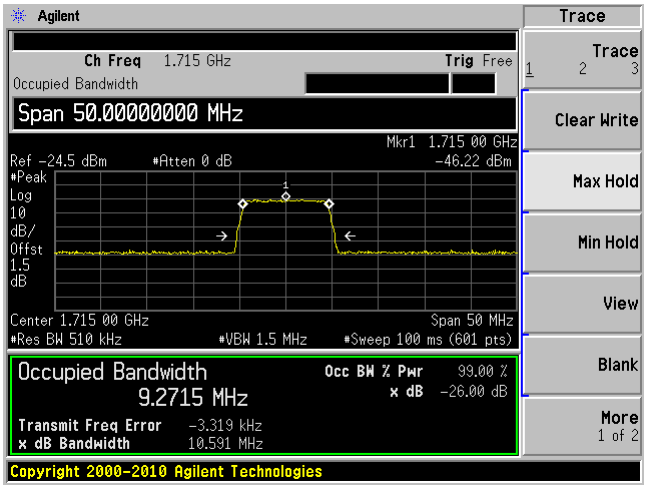


High O/P

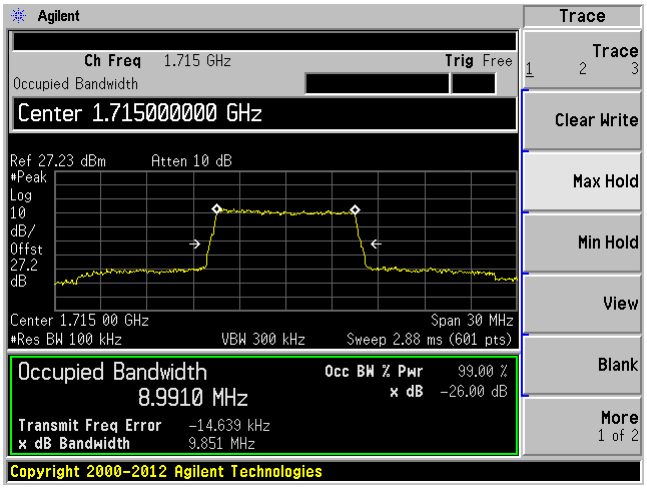


LTE Band 4, UL, 10 MHz, QPSK

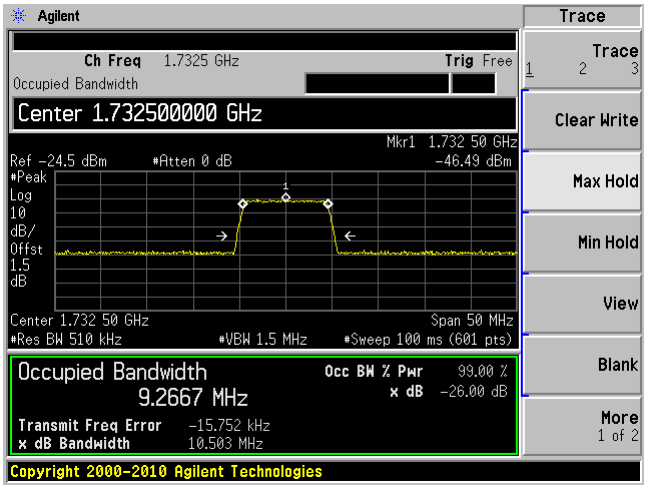
Low I/P



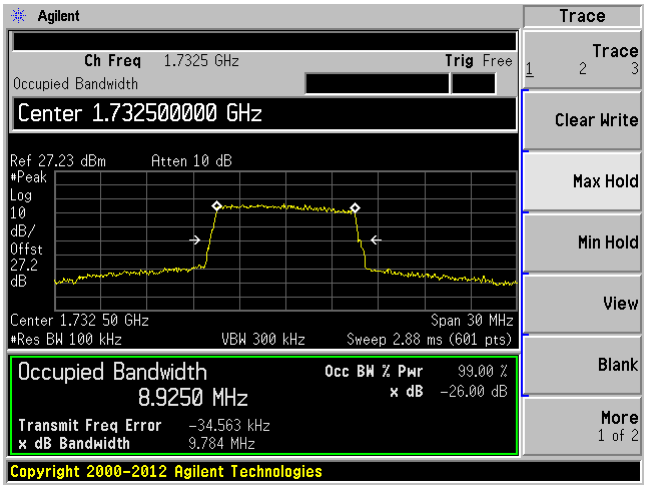
Low O/P



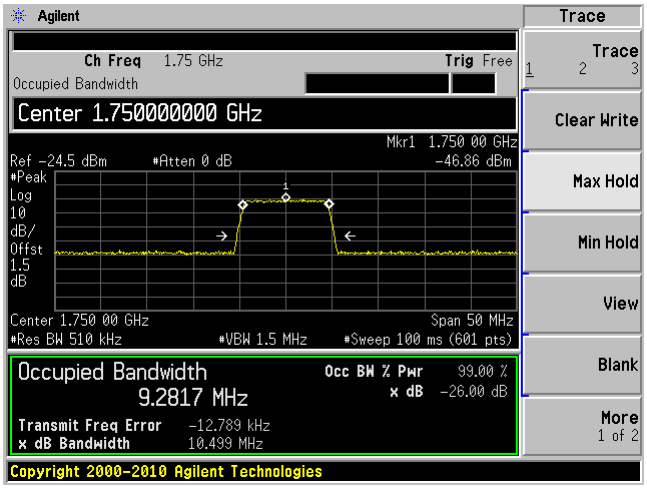
Middle I/P



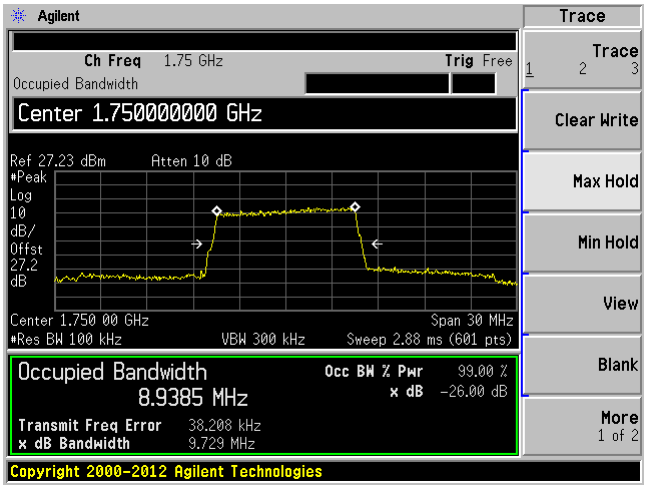
Middle O/P



High I/P

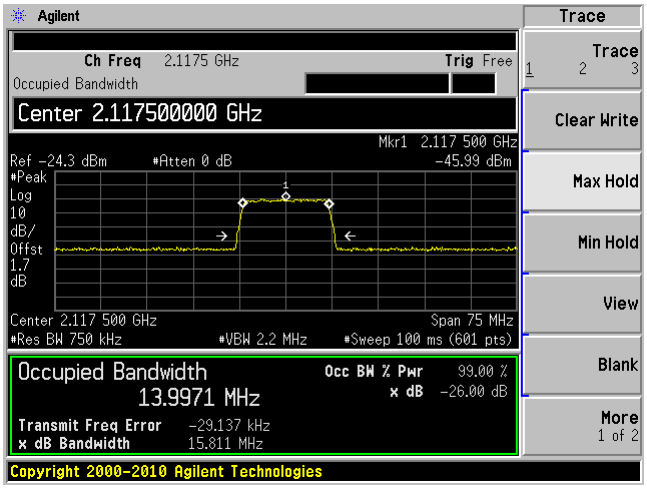


High O/P

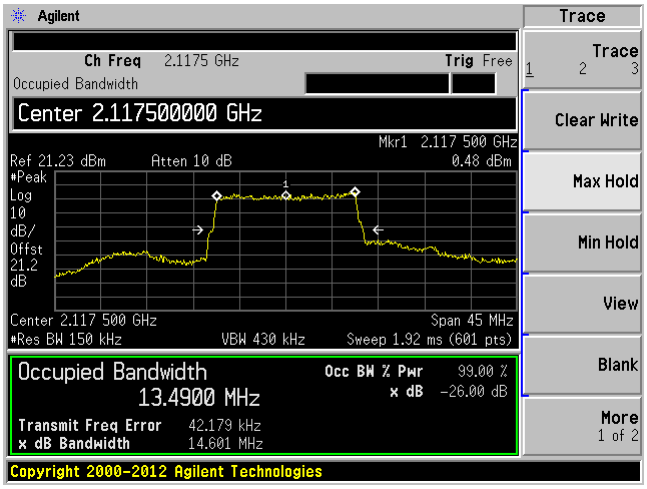


LTE Band 4, DL, 15 MHz, QPSK

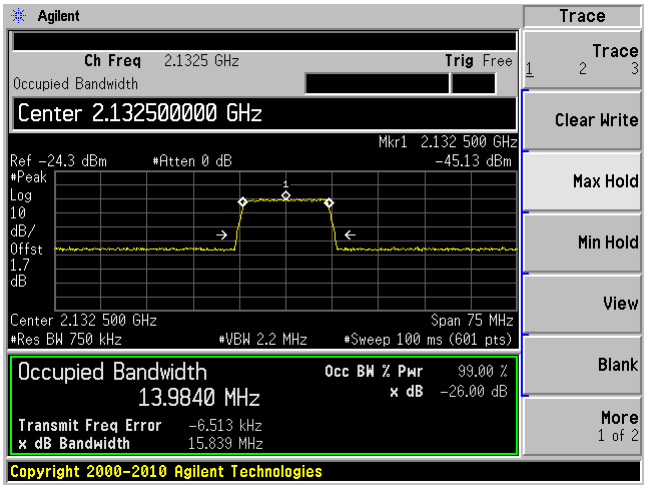
Low I/P



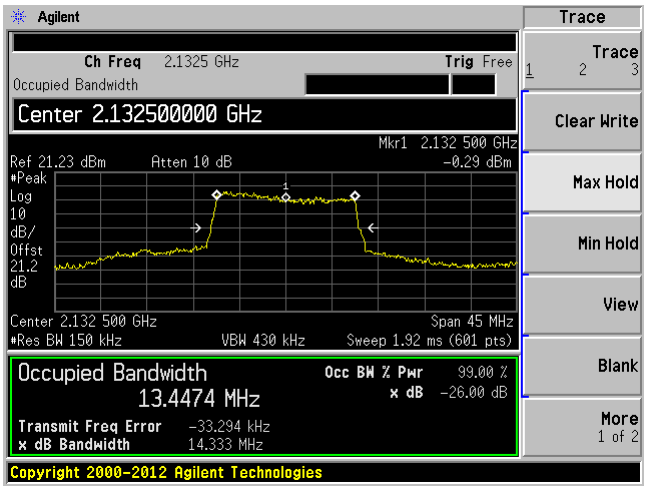
Low O/P



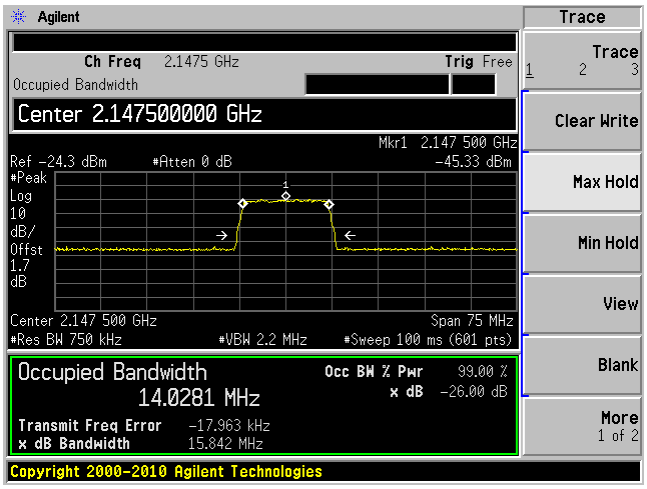
Middle I/P



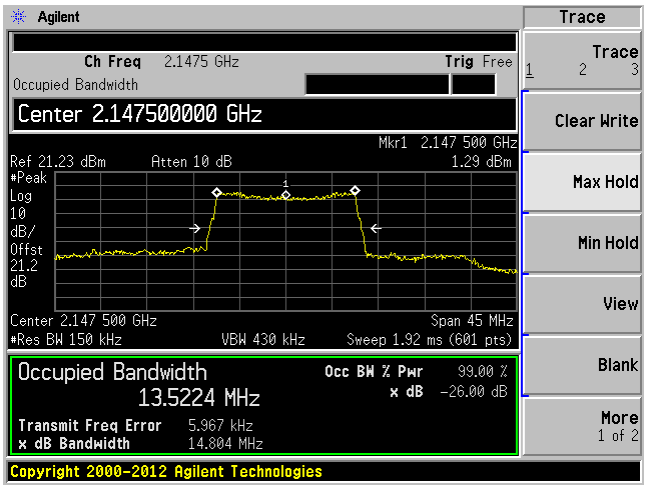
Middle O/P



High I/P

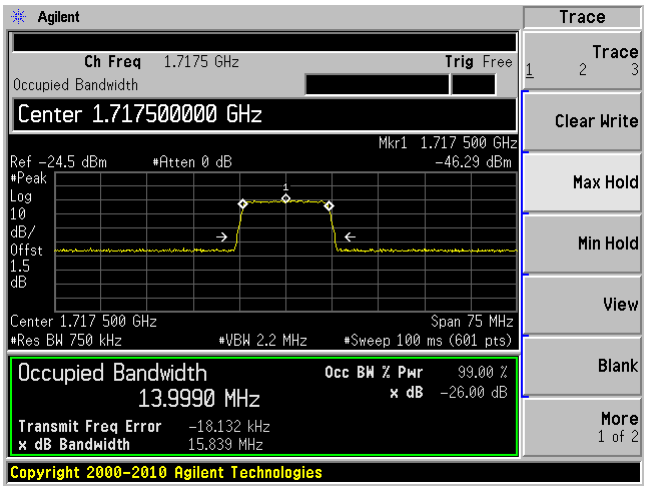


High O/P

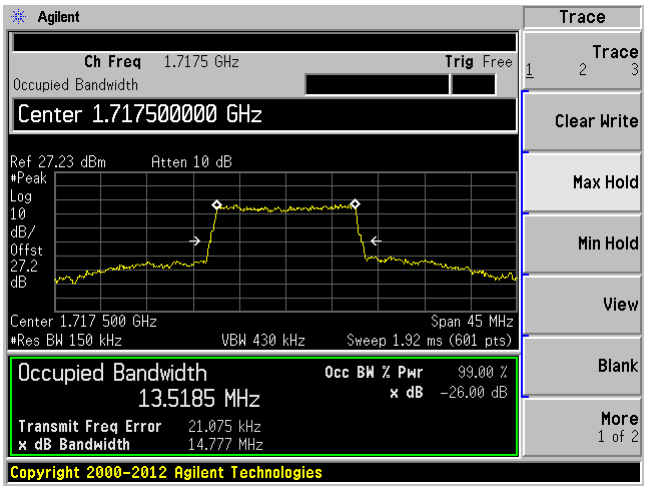


LTE Band 4, UL, 15 MHz, QPSK

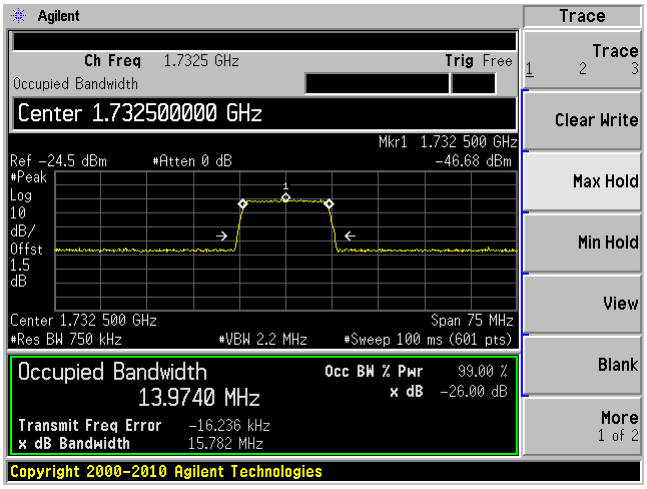
Low I/P



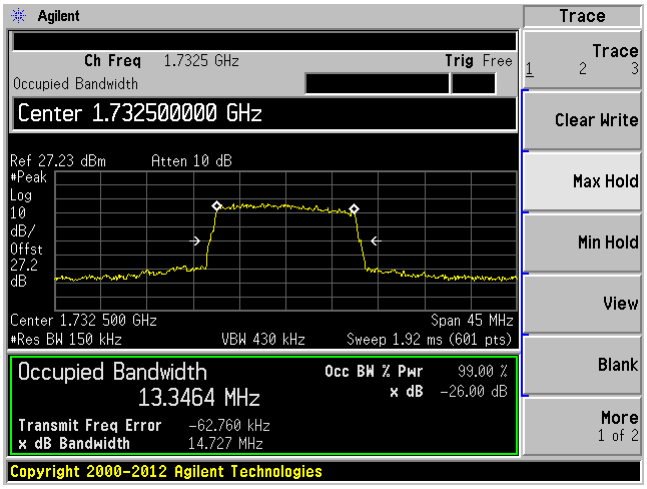
Low O/P



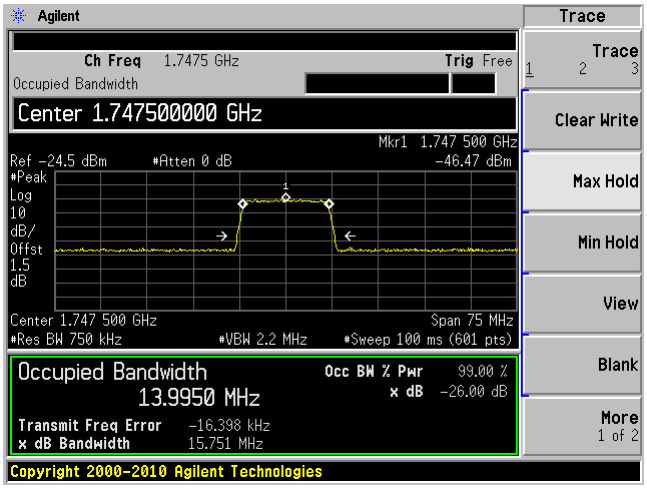
Middle I/P



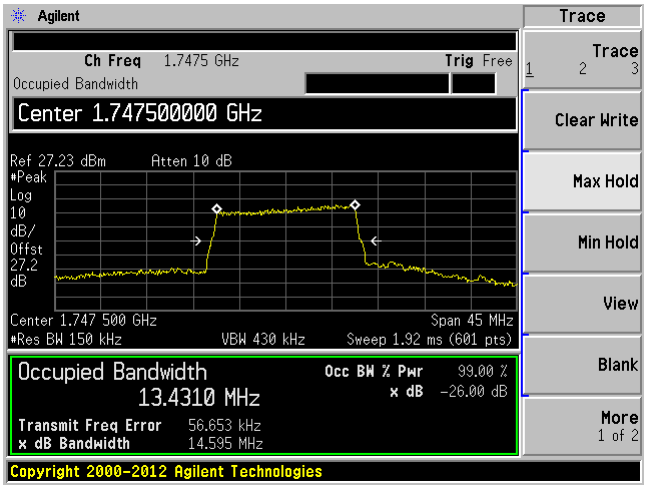
Middle O/P



High I/P

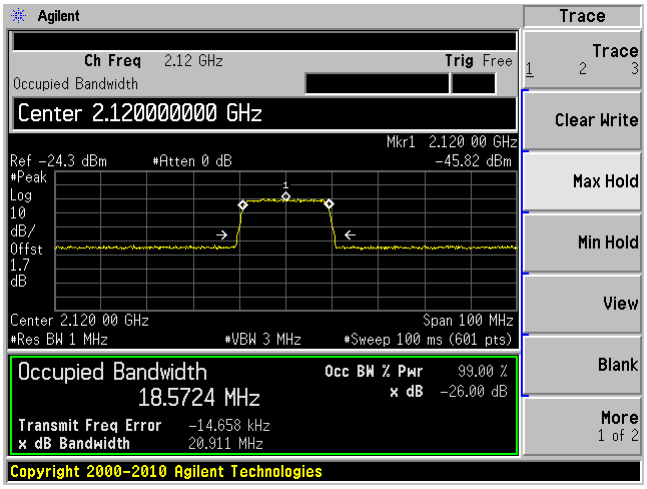


High O/P

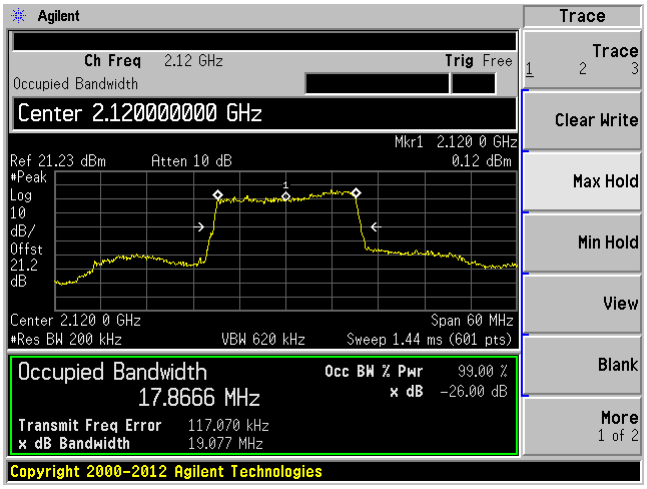


LTE Band 4, DL, 20 MHz, QPSK

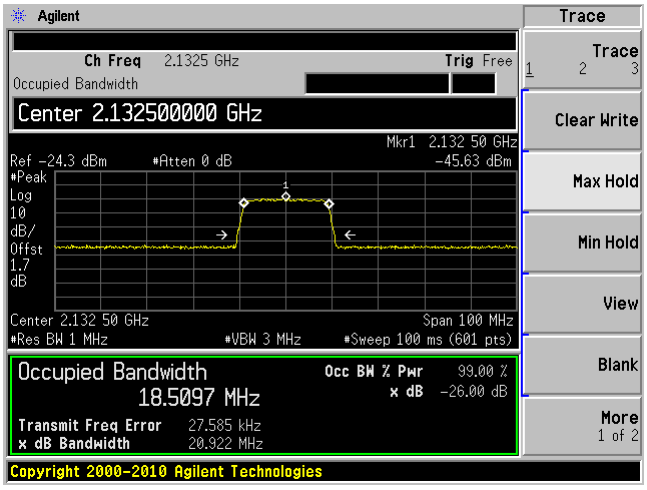
Low I/P



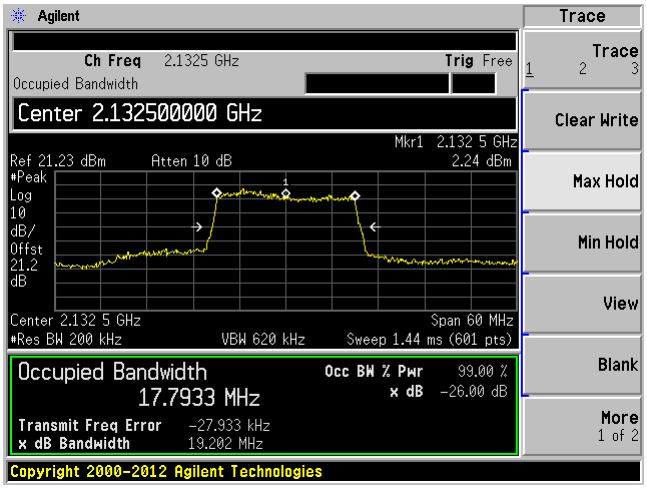
Low O/P



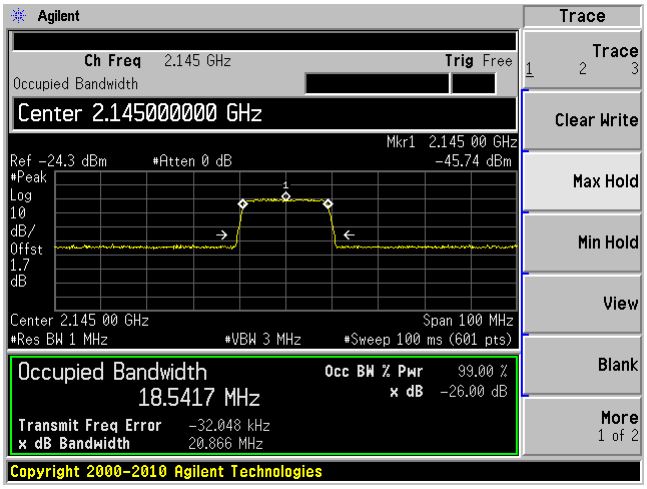
Middle I/P



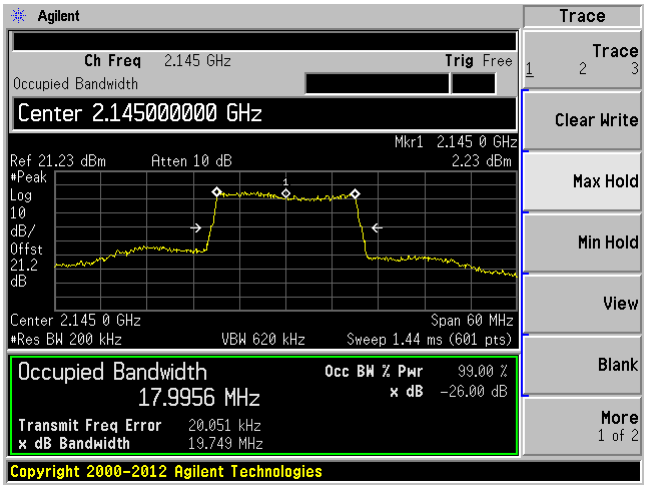
Middle O/P



High I/P

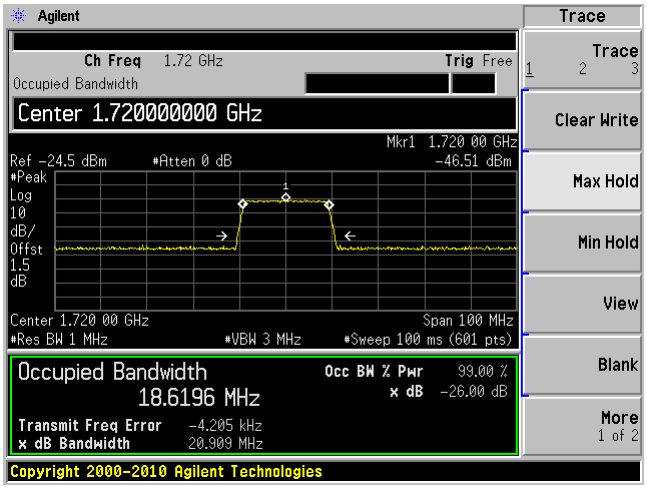


High O/P

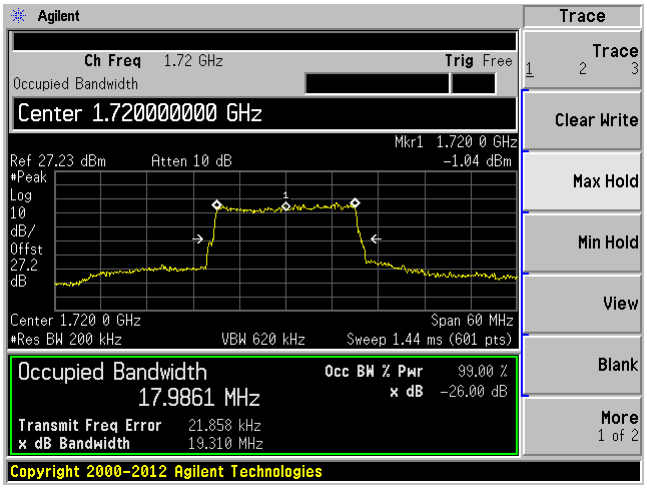


LTE Band 4, UL, 20 MHz, QPSK

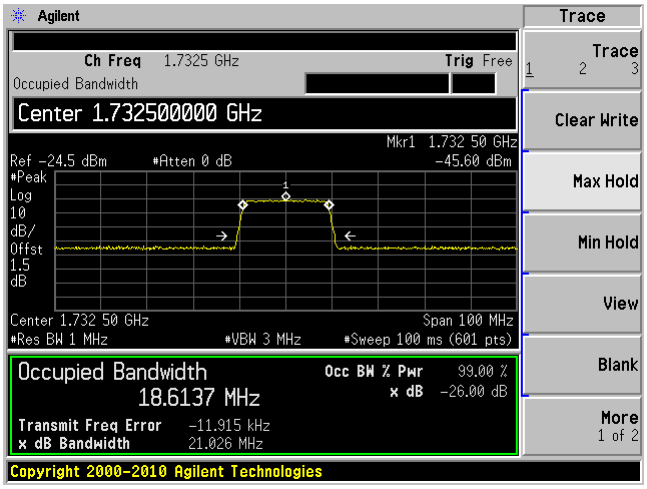
Low I/P



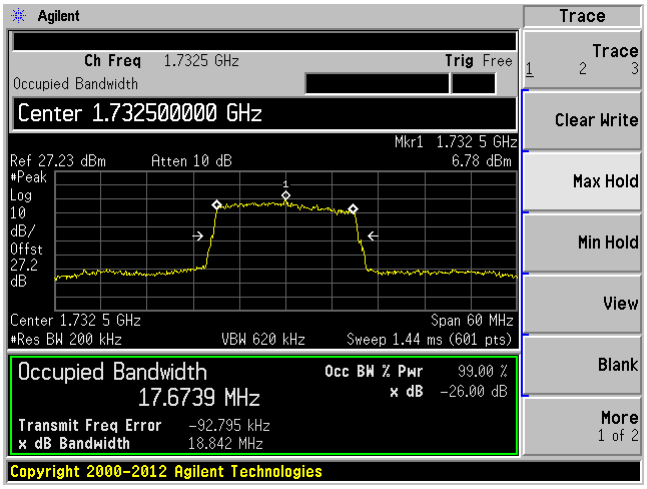
Low O/P



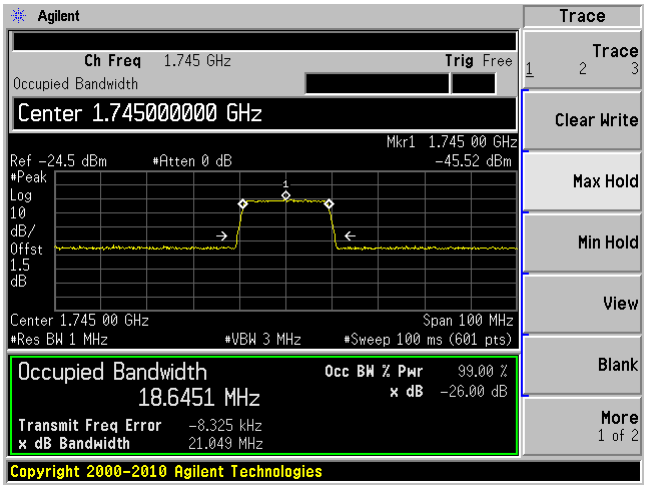
Middle I/P



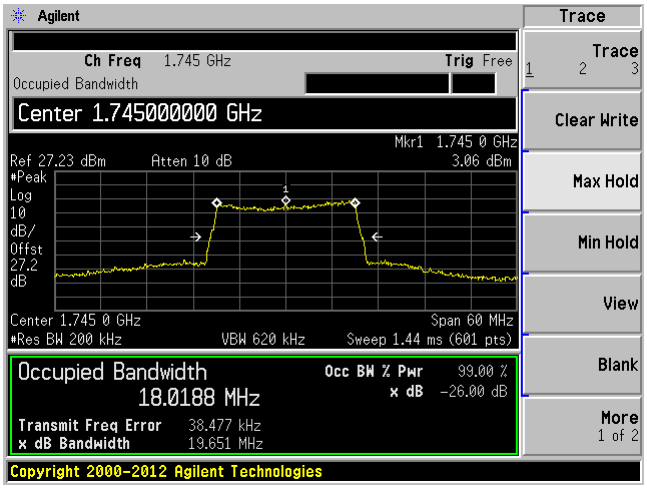
Middle O/P



High I/P

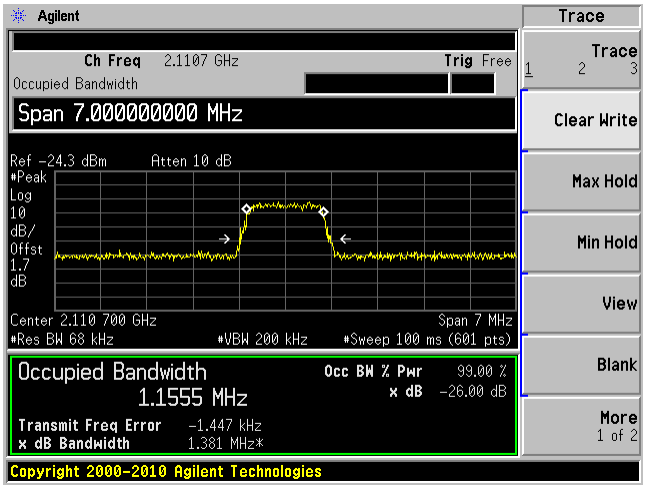


High O/P

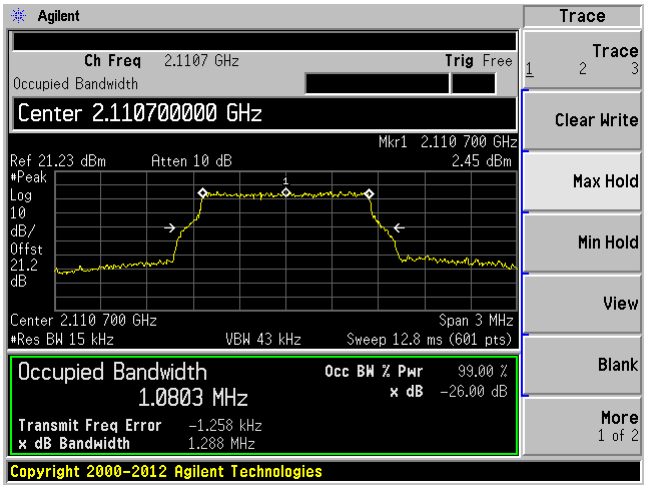


LTE Band 4, DL, 1.4 MHz, 16QAM

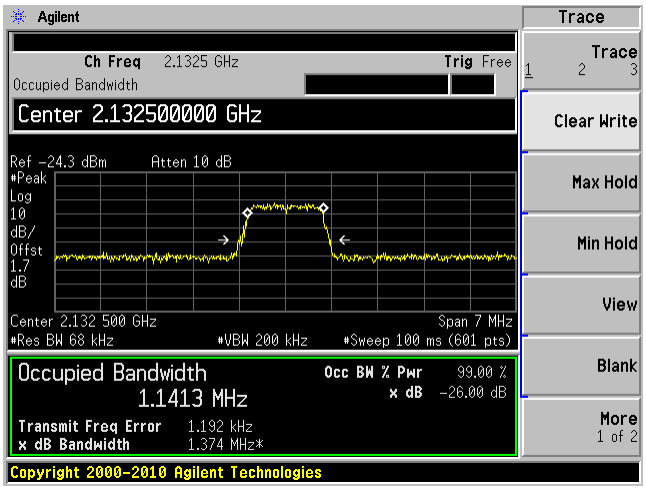
Low I/P



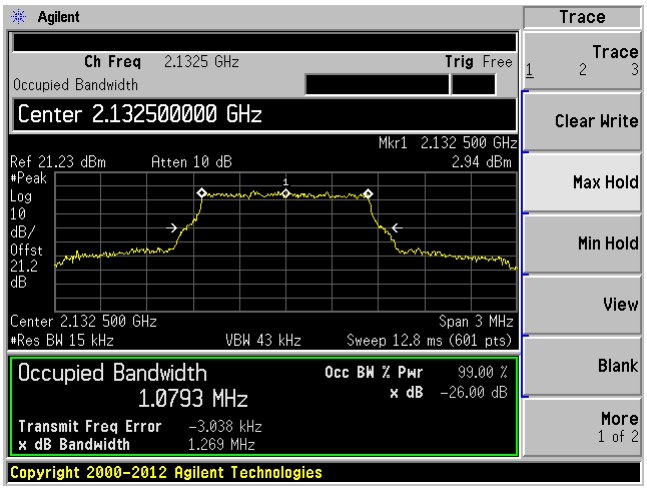
Low O/P



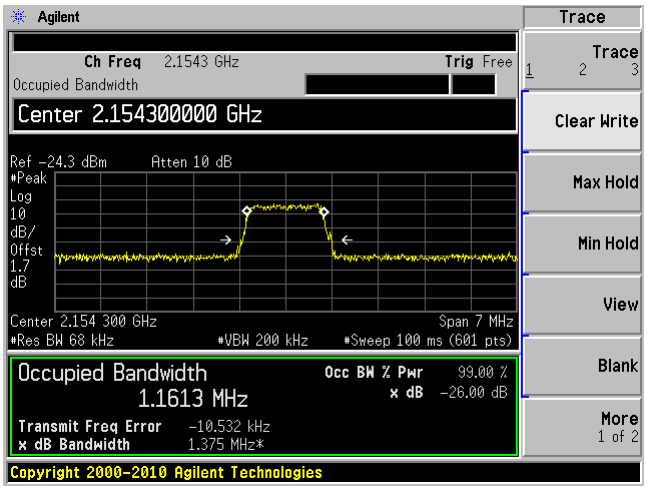
Middle I/P



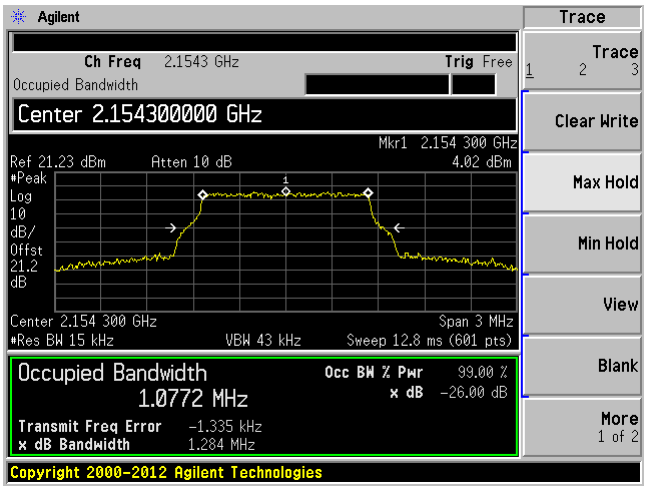
Middle O/P



High I/P

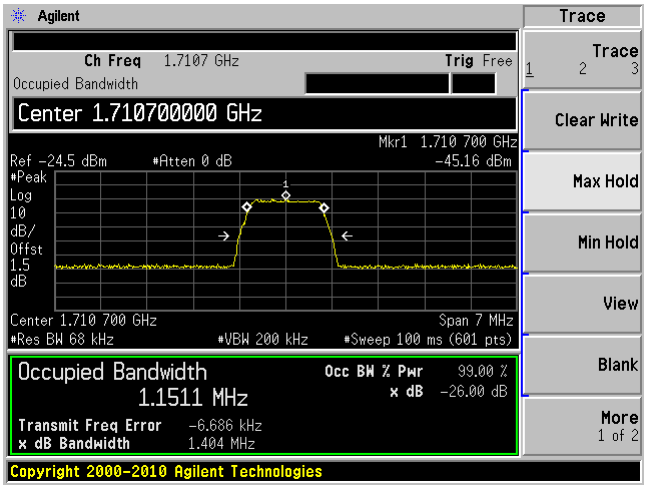


High O/P

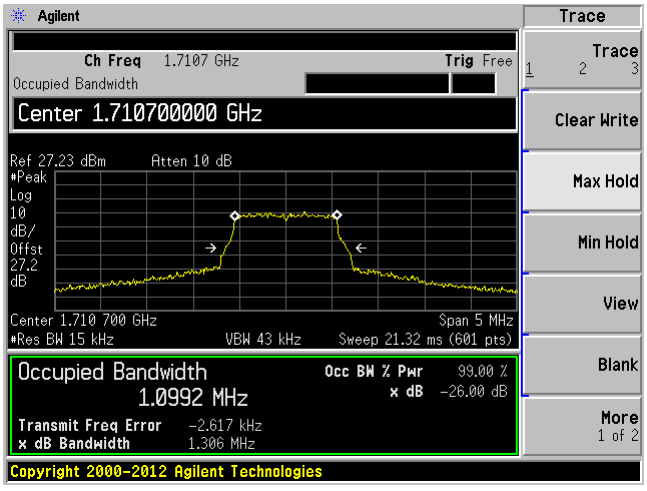


LTE Band 4, UL, 1.4MHz, 16QAM

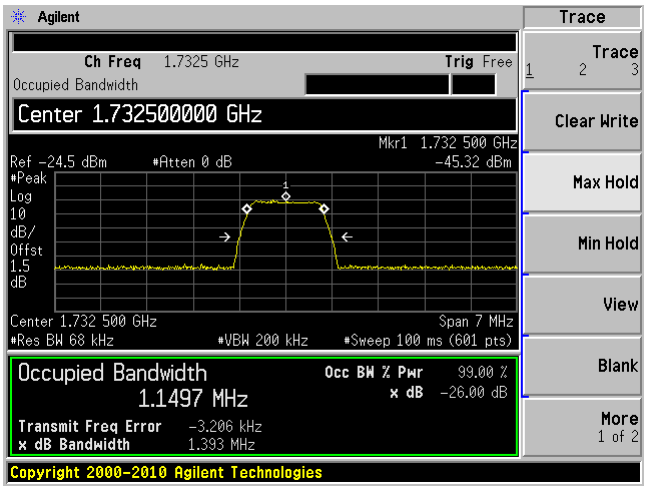
Low I/P



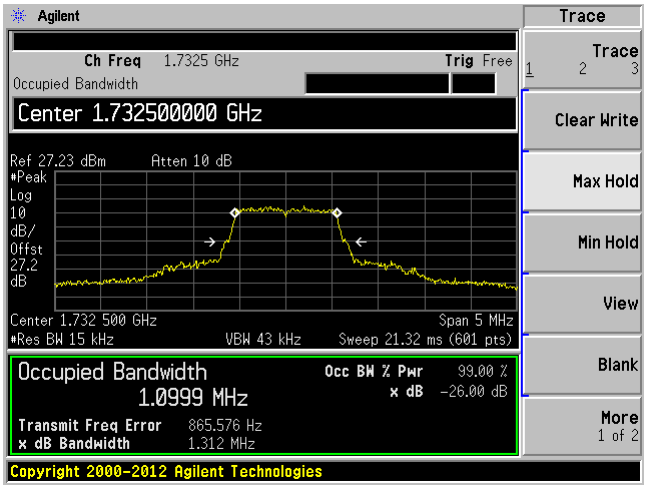
Low O/P



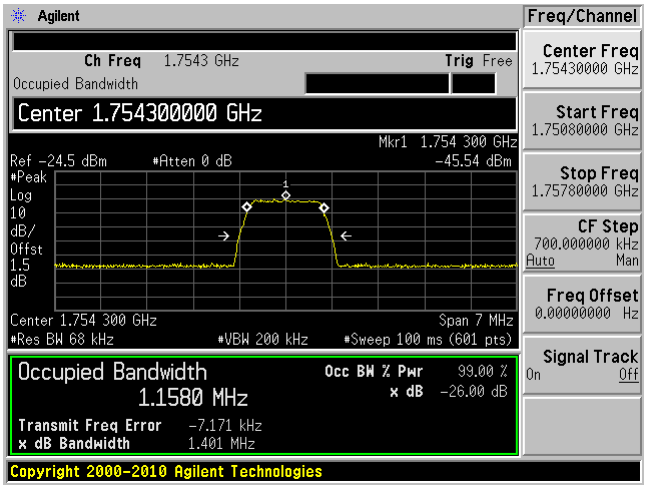
Middle I/P



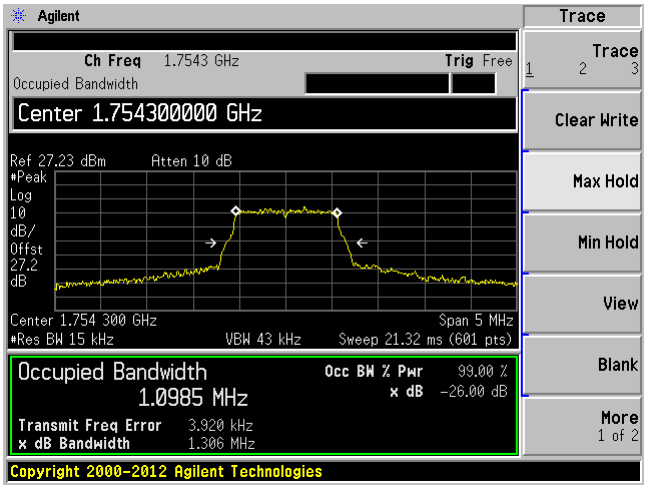
Middle O/P



High I/P

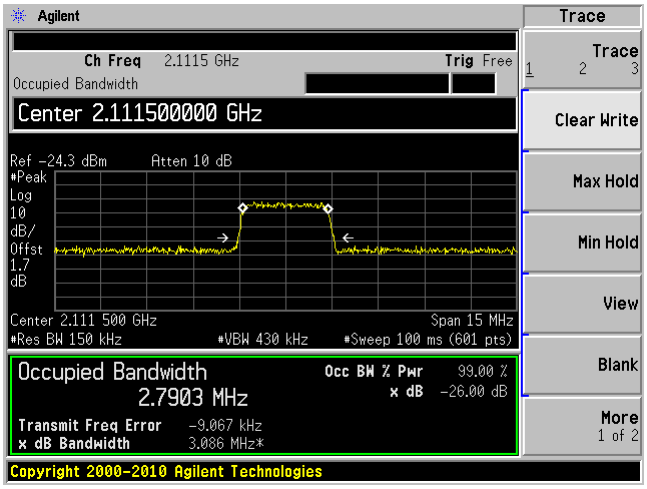


High O/P

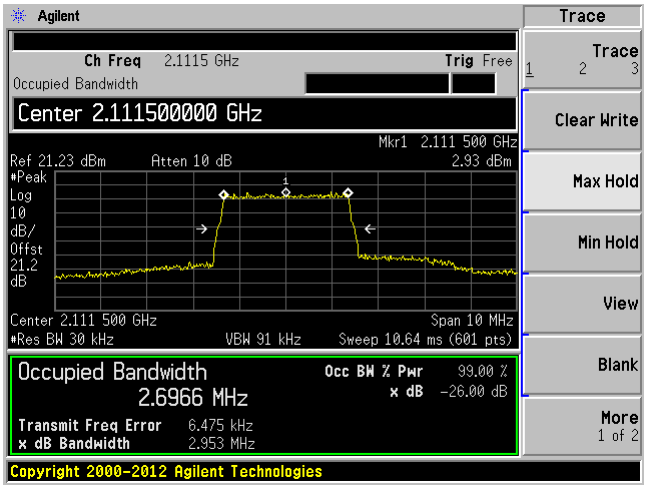


LTE Band 4, DL, 3 MHz, 16QAM

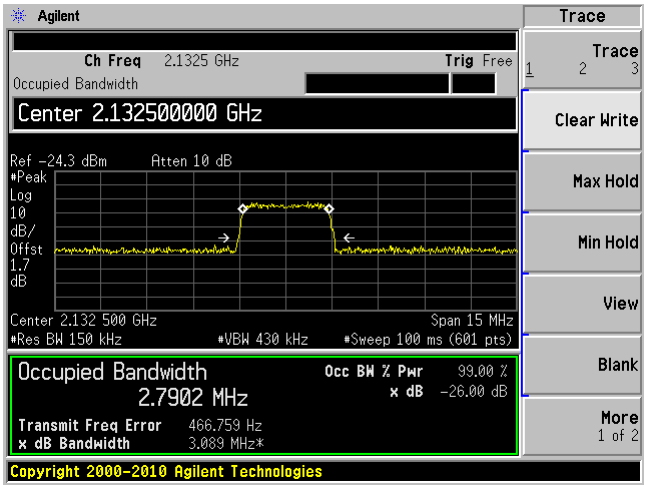
Low I/P



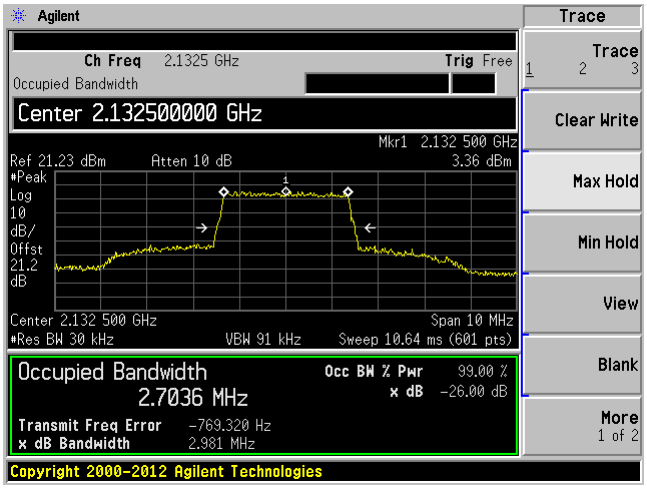
Low O/P



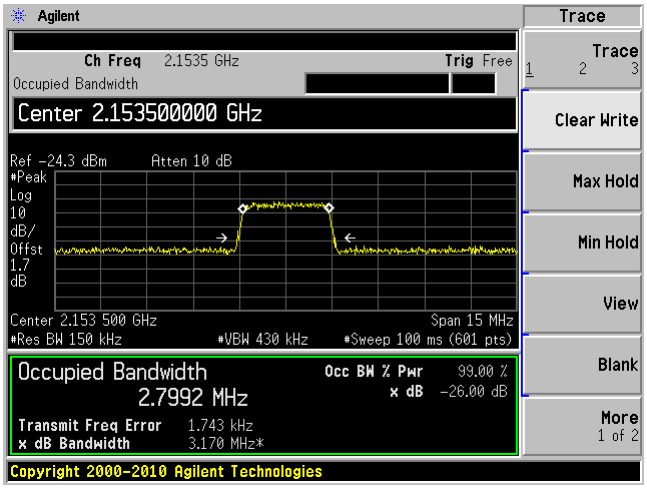
Middle I/P



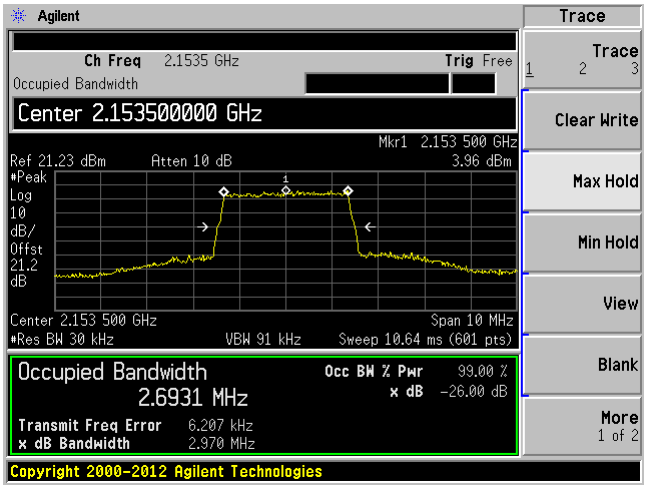
Middle O/P



High I/P

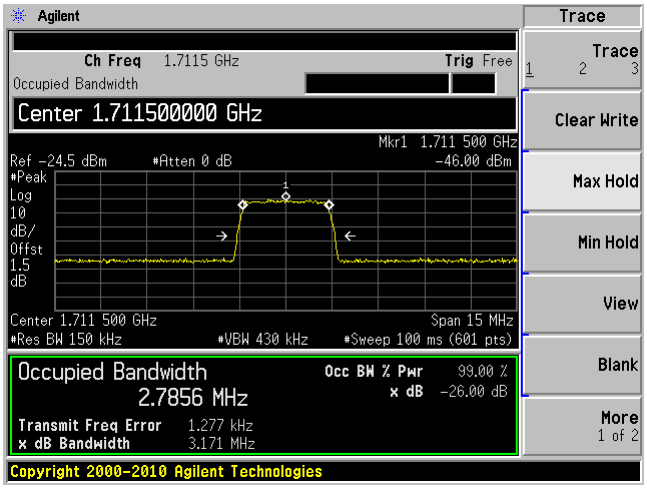


High O/P

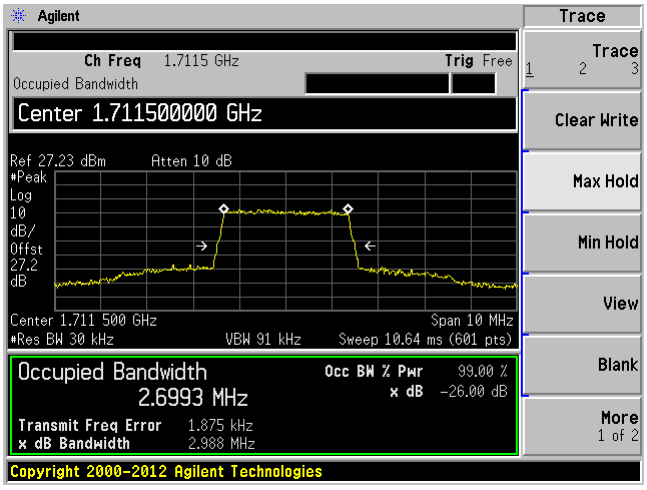


LTE Band 4, UL, 3 MHz, 16QAM

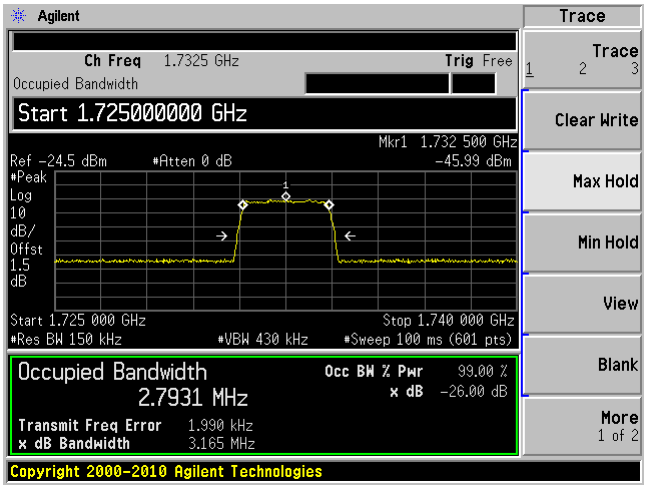
Low I/P



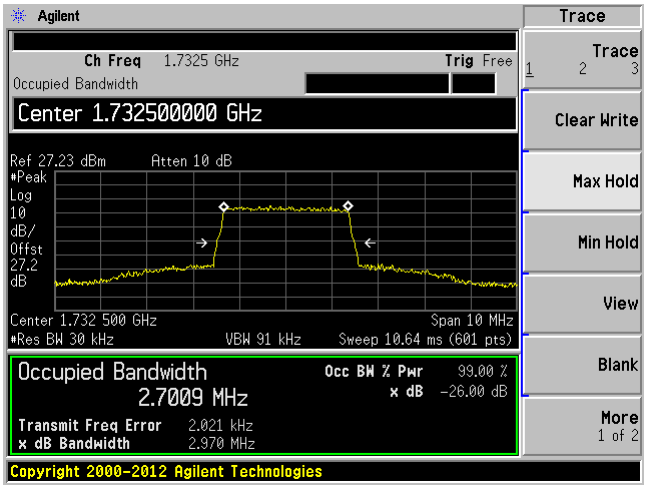
Low O/P



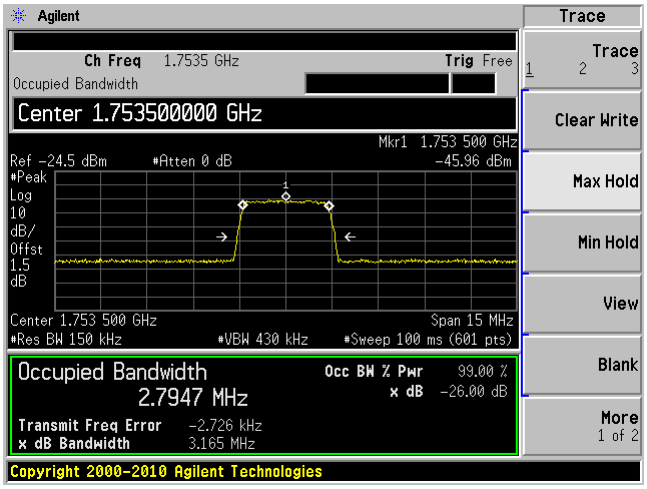
Middle I/P



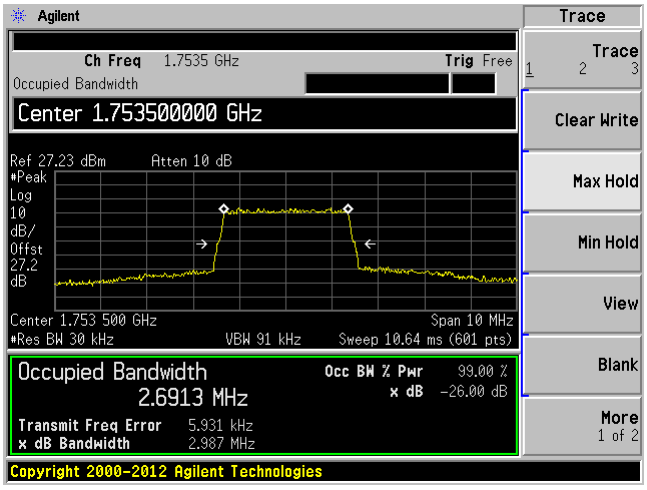
Middle O/P



High I/P

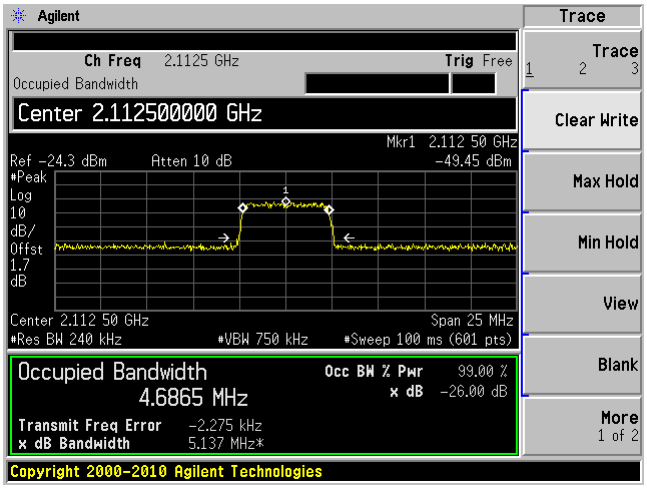


High O/P

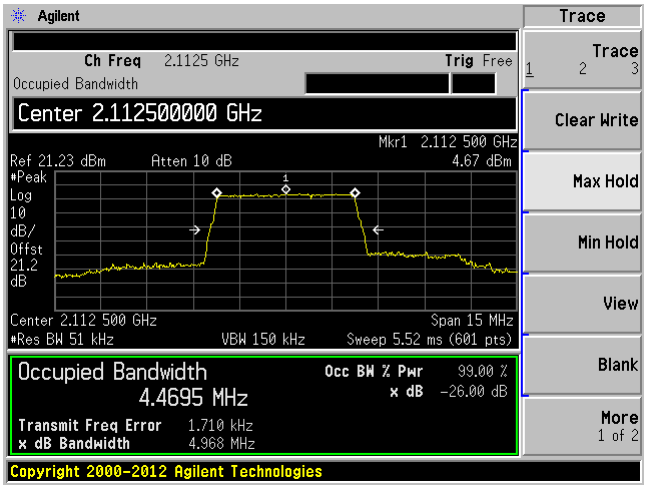


LTE Band 4, DL, 5 MHz, 16QAM

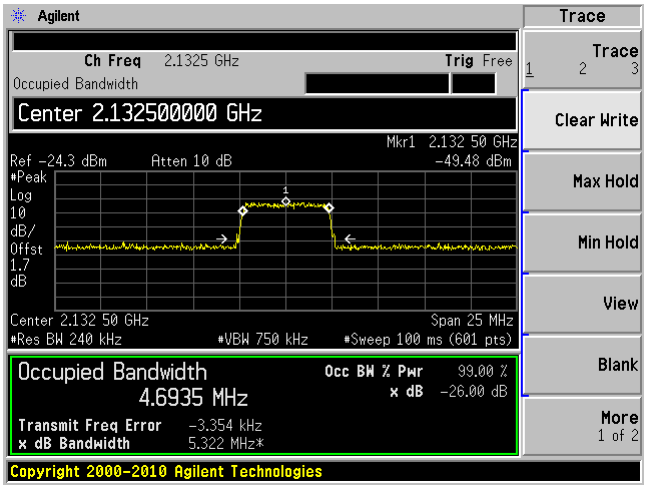
Low I/P



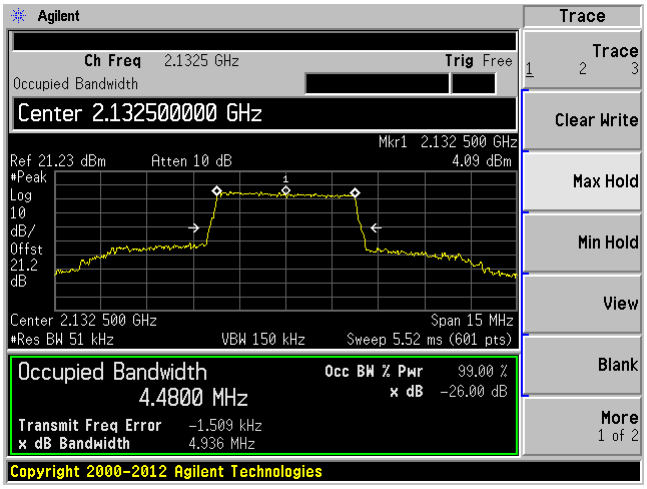
Low O/P



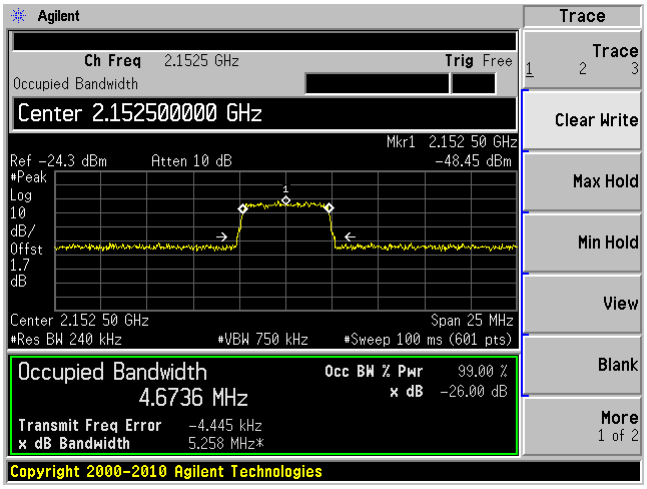
Middle I/P



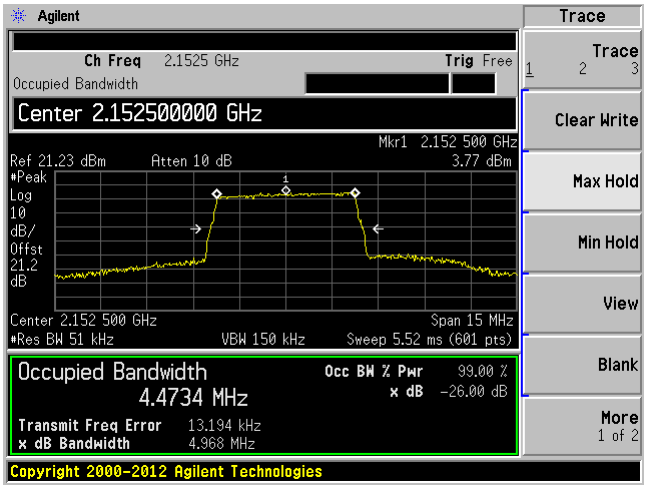
Middle O/P



High I/P

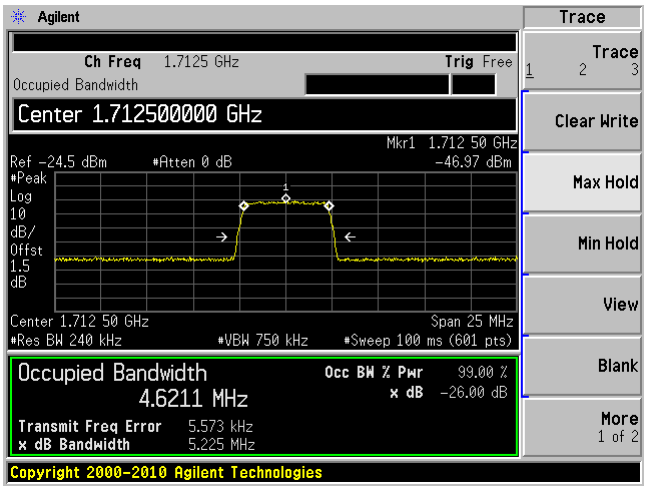


High O/P

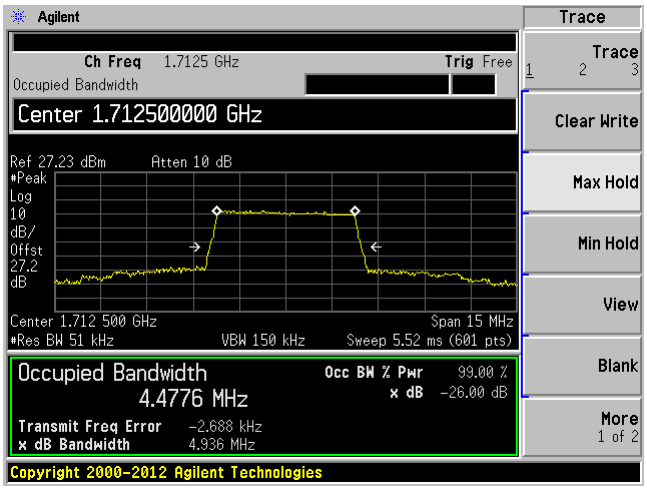


LTE Band 4, UL, 5 MHz, 16QAM

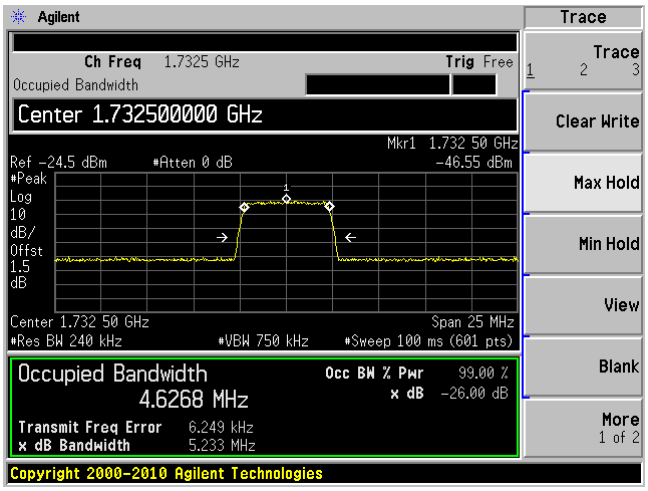
Low I/P



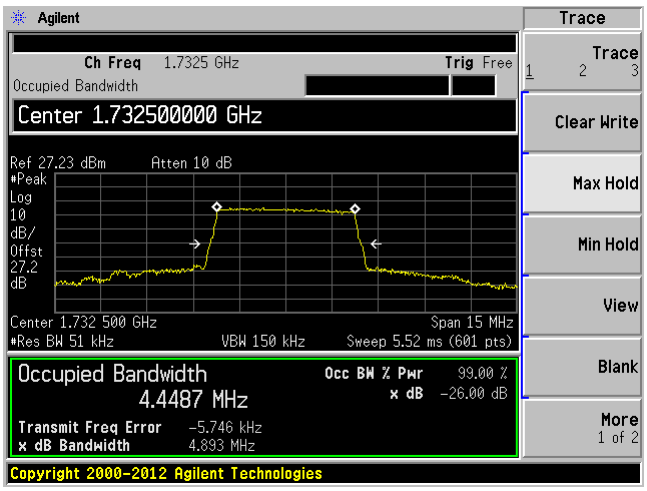
Low O/P



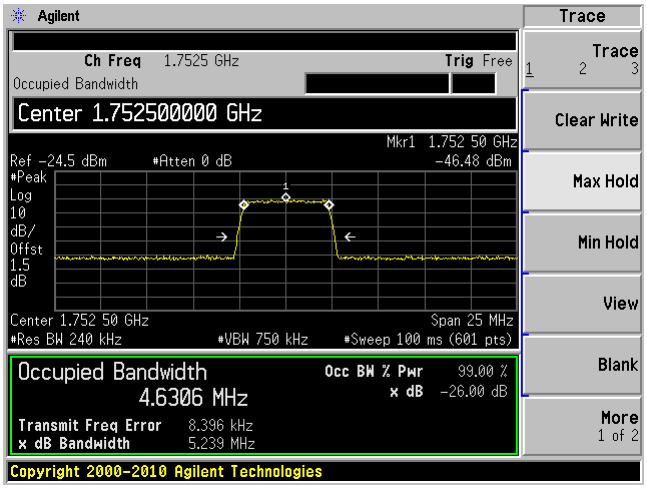
Middle I/P



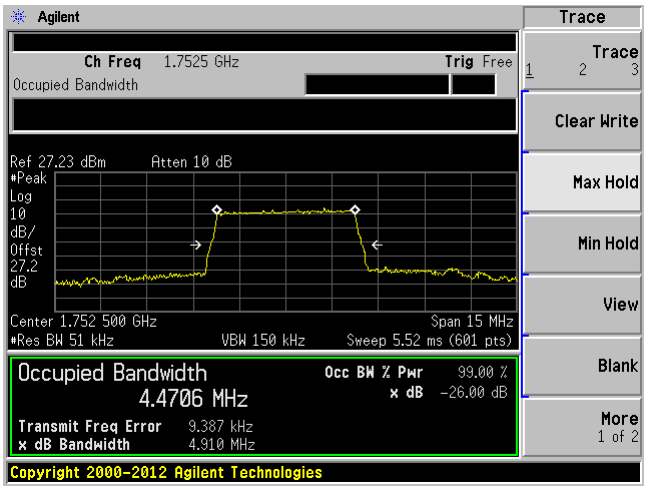
Middle O/P



High I/P

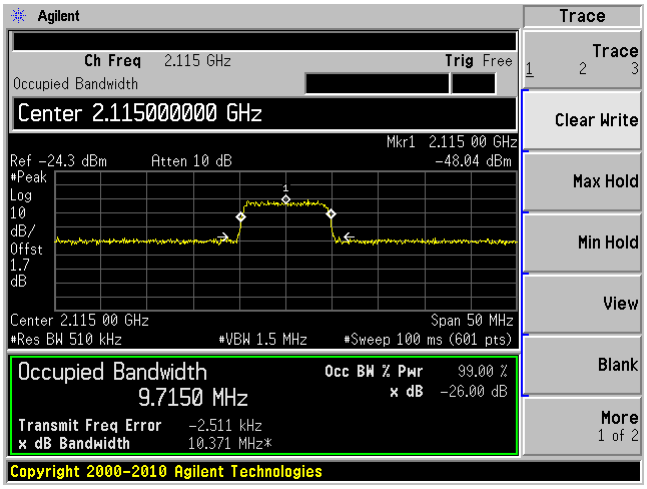


High O/P

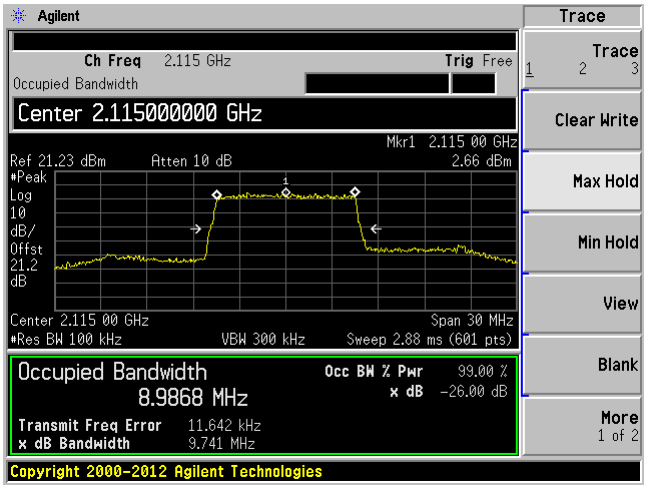


LTE Band 4, DL, 10 MHz, 16QAM

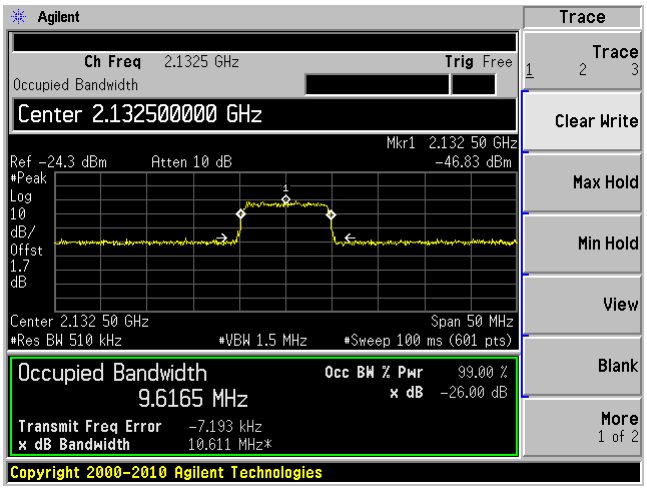
Low I/P



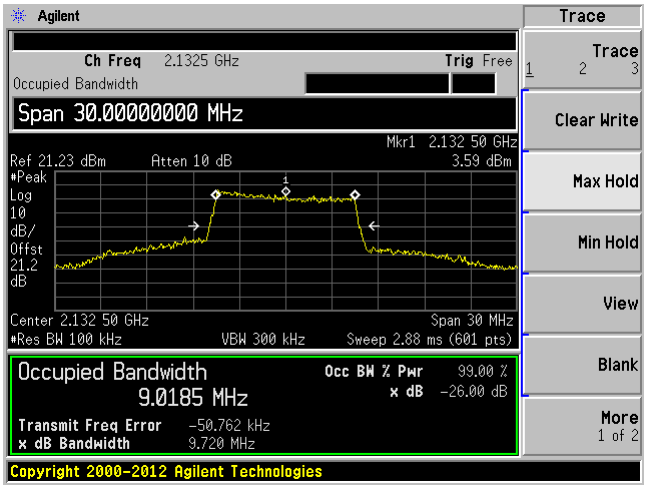
Low O/P



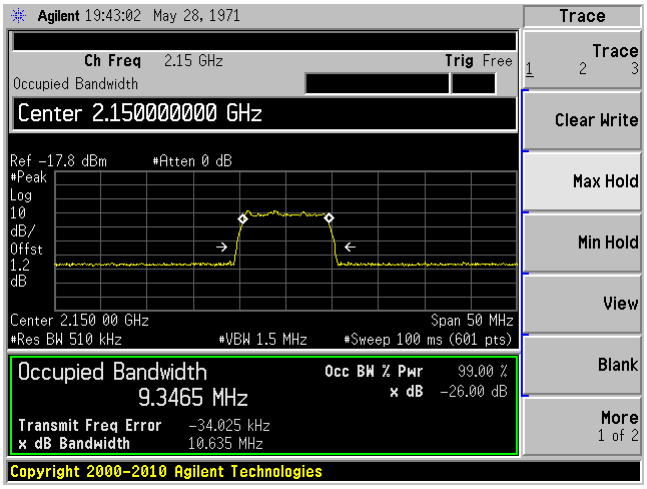
Middle I/P



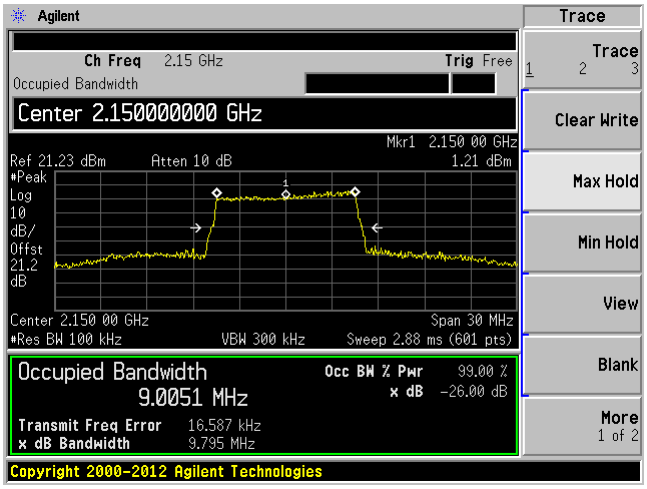
Middle O/P



High I/P

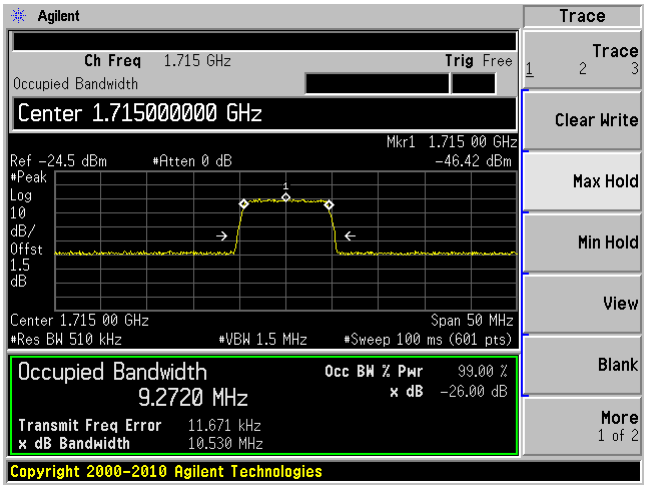


High O/P

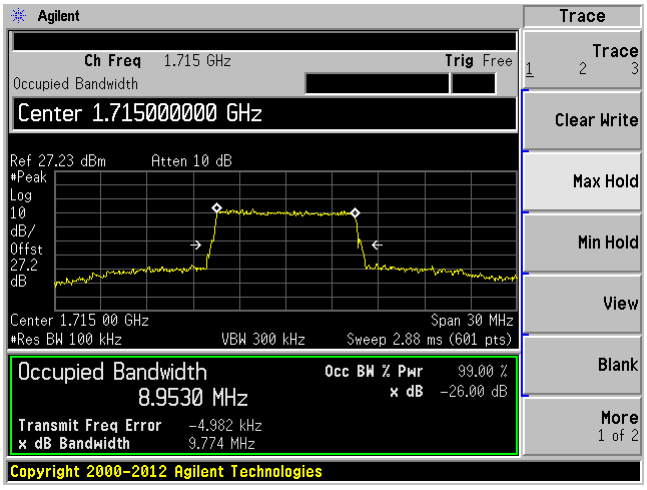


LTE Band 4, UL, 10 MHz, 16QAM

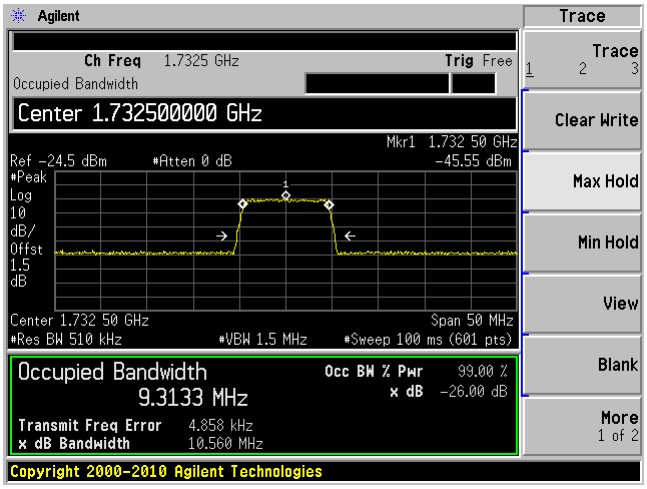
Low I/P



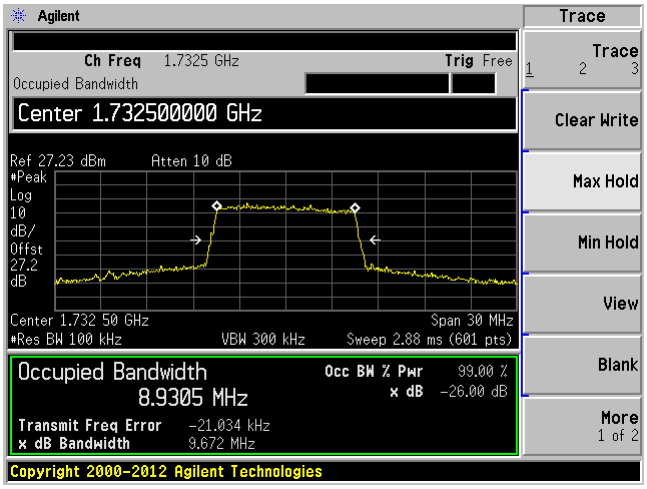
Low O/P



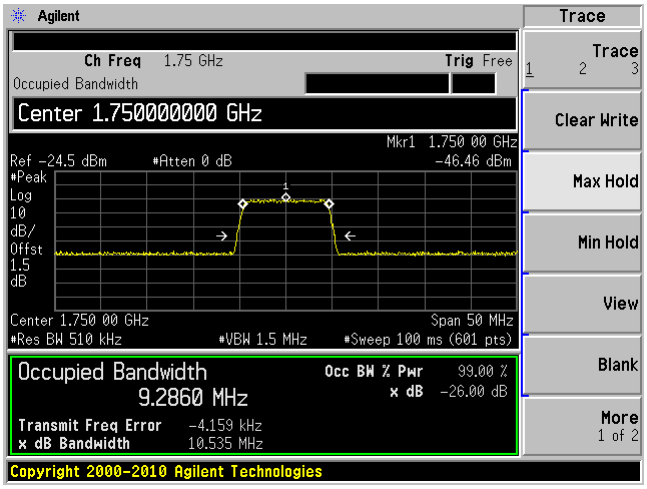
Middle I/P



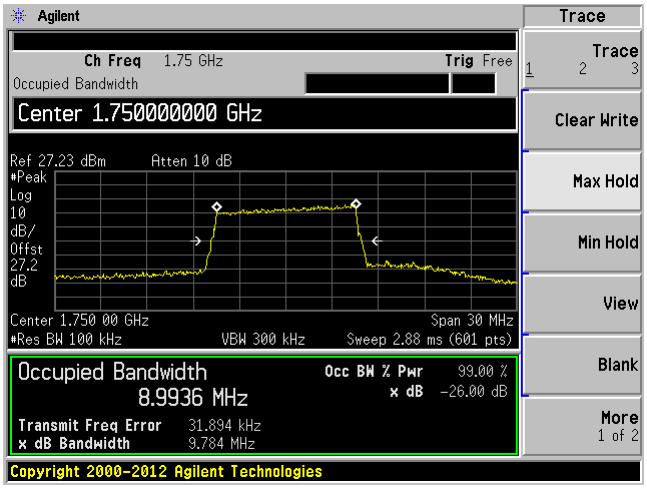
Middle O/P



High I/P

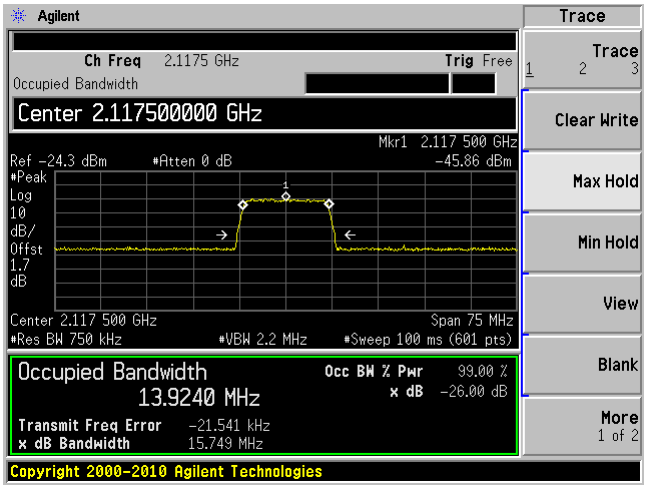


High O/P

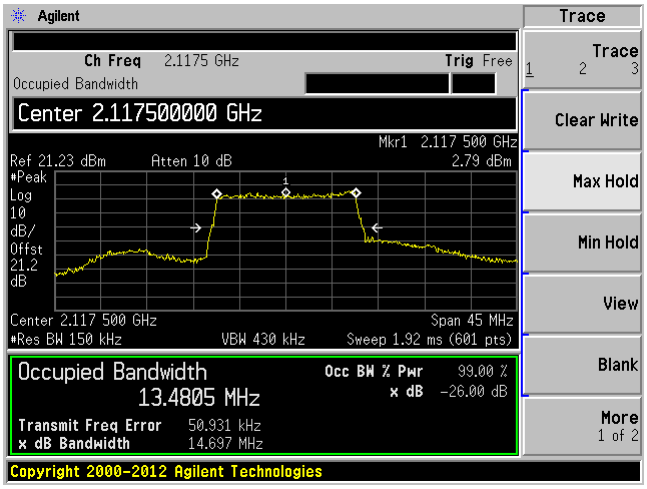


LTE Band 4, DL, 15 MHz, 16QAM

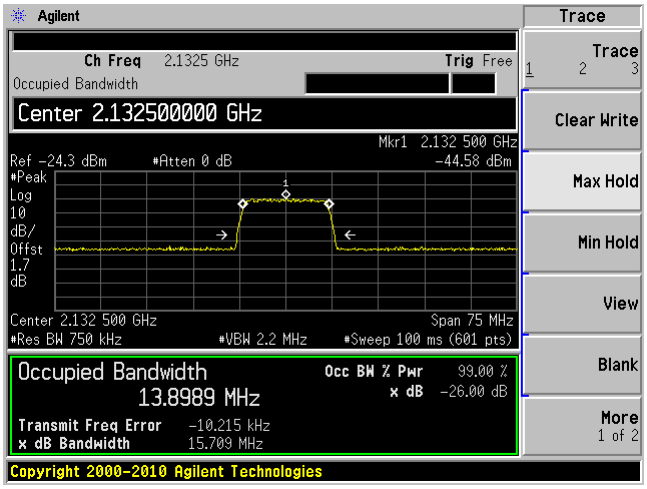
Low I/P



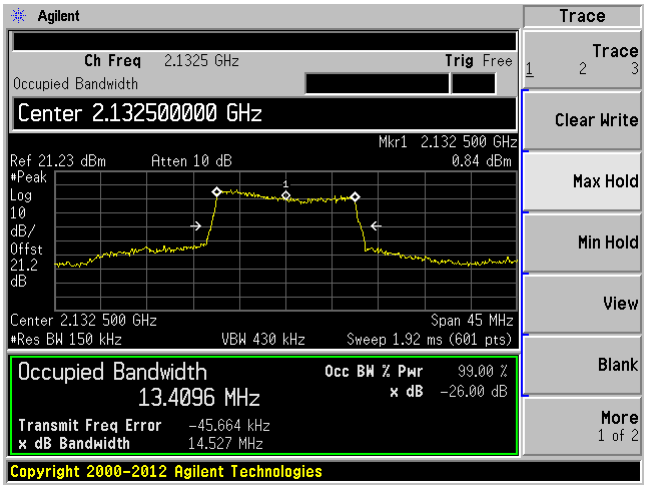
Low O/P



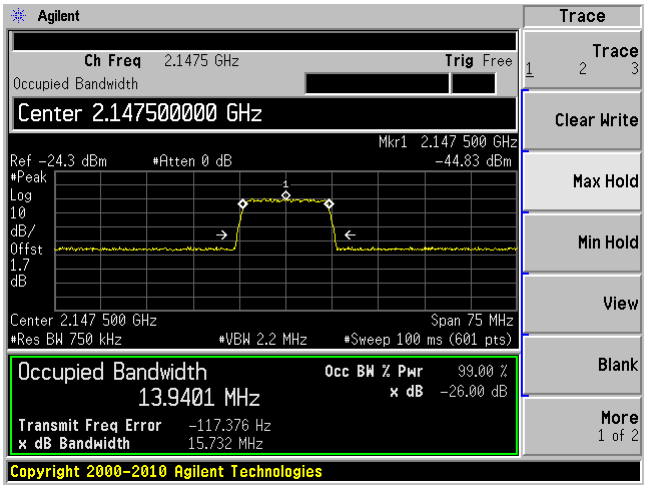
Middle I/P



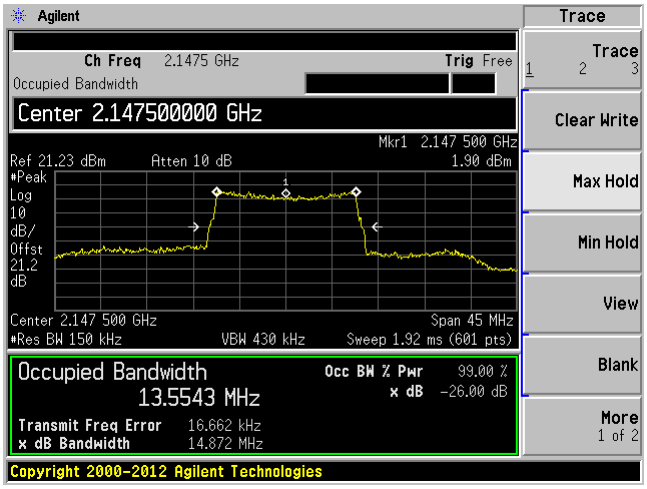
Middle O/P



High I/P

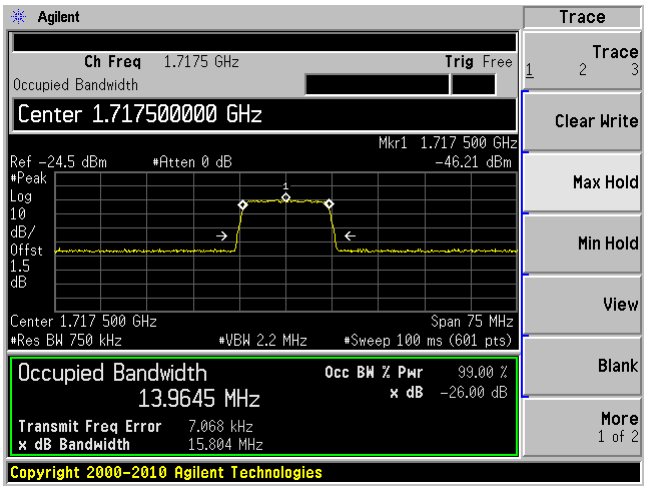


High O/P

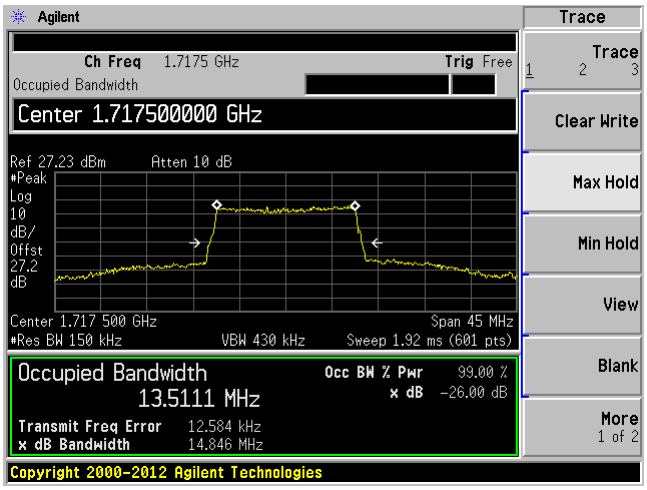


LTE Band 4, UL, 15 MHz, 16QAM

Low I/P



Low O/P



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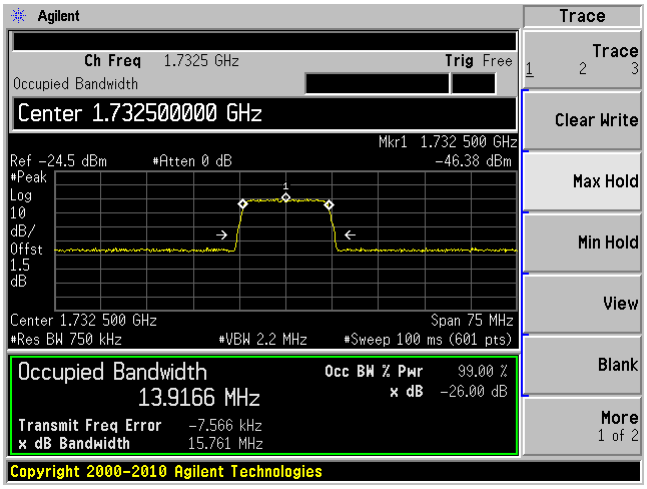
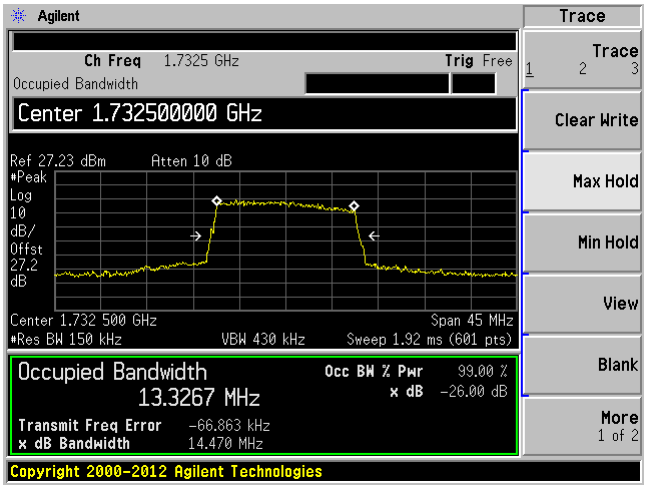
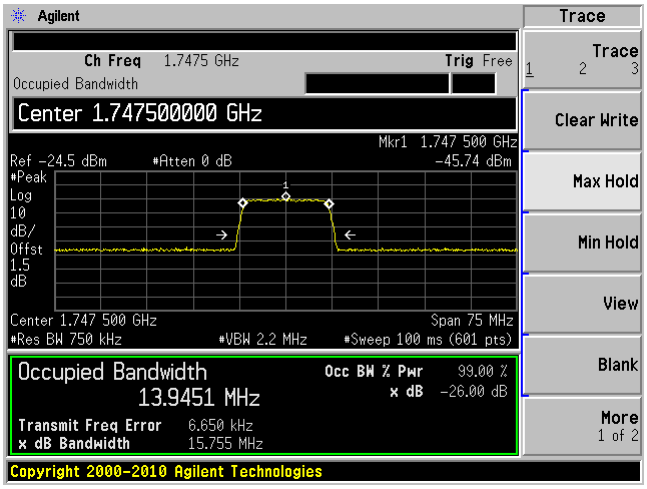
Middle I/P



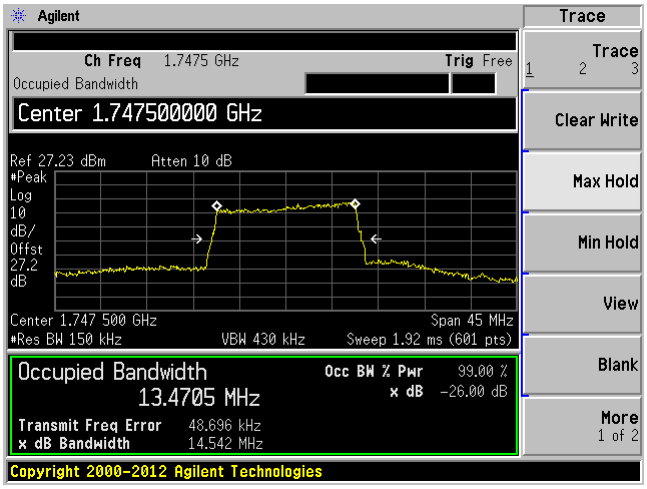
Middle O/P



High I/P

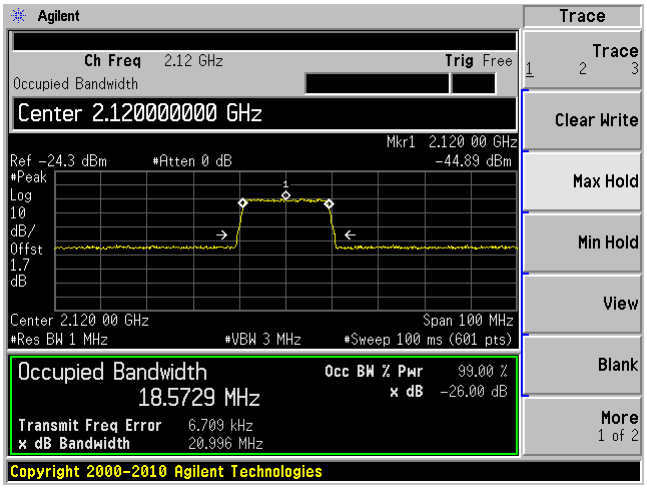


High O/P

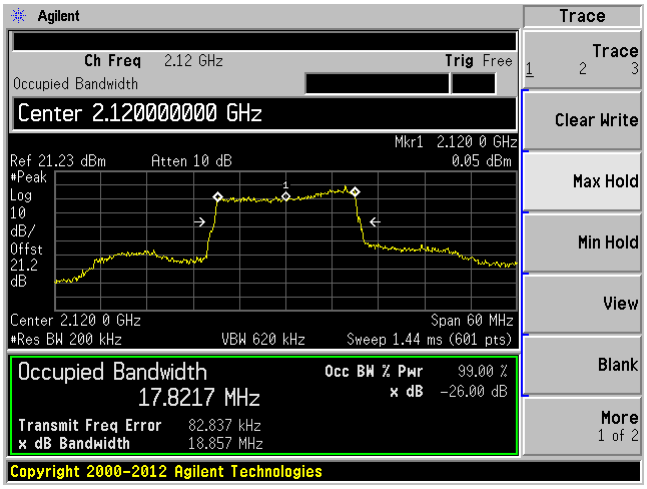


LTE Band 4, DL, 20 MHz, 16QAM

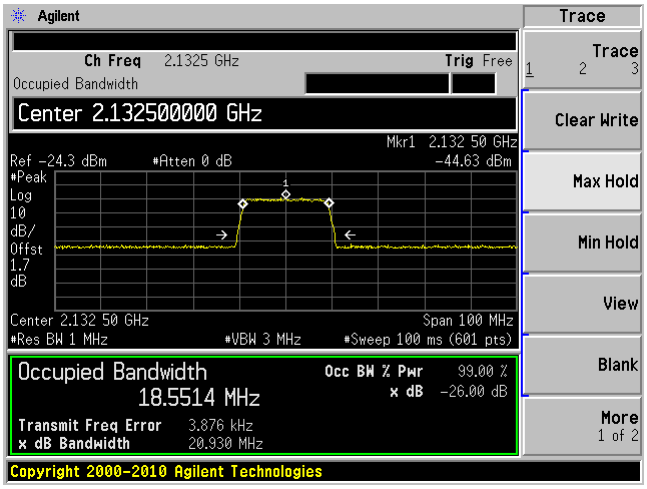
Low I/P



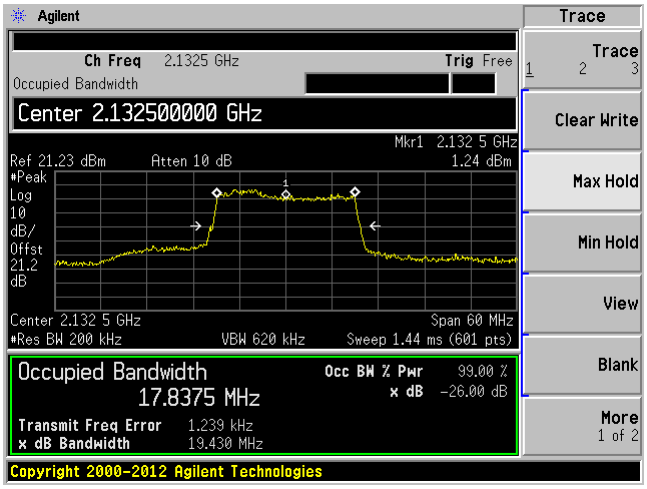
Low O/P



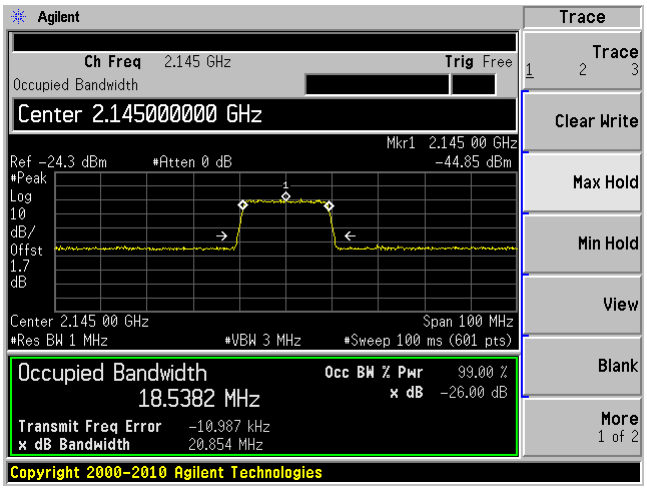
Middle I/P



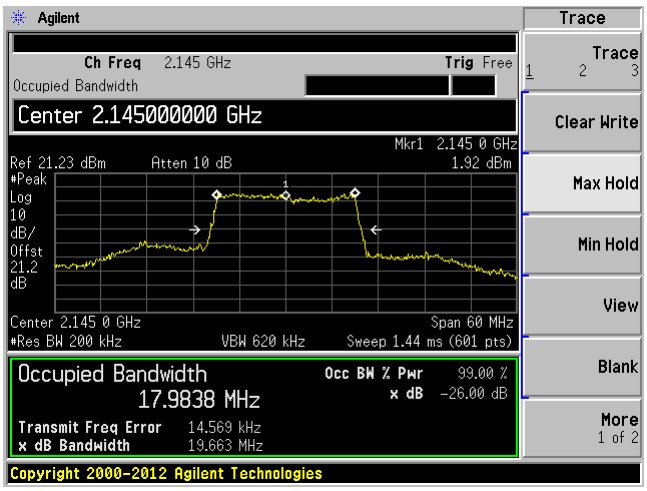
Middle O/P



High I/P

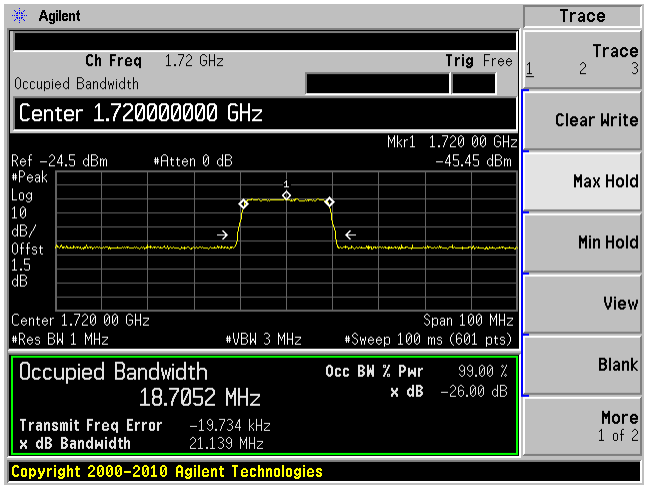


High O/P

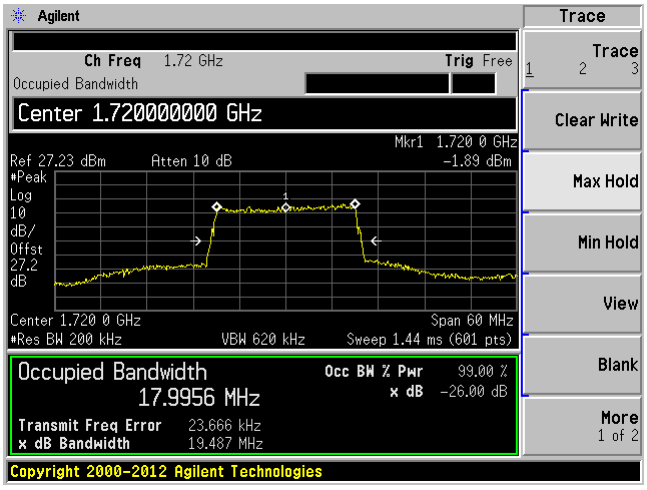


LTE Band 4, UL, 20 MHz, 16QAM

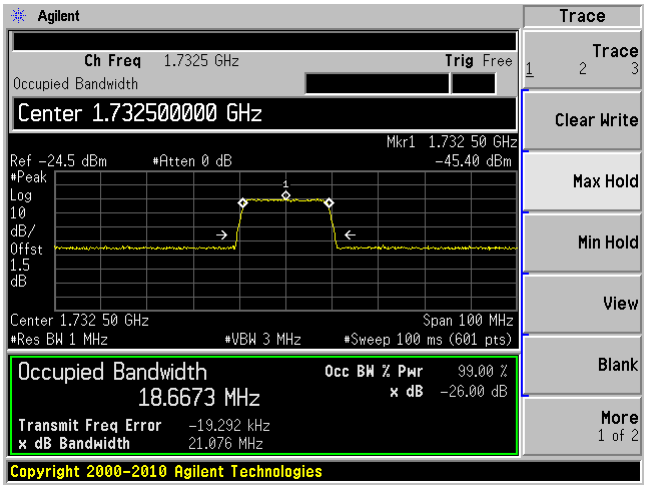
Low I/P



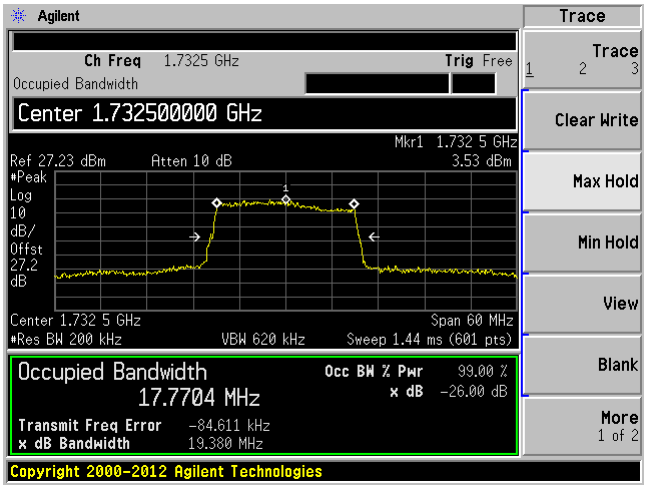
Low O/P



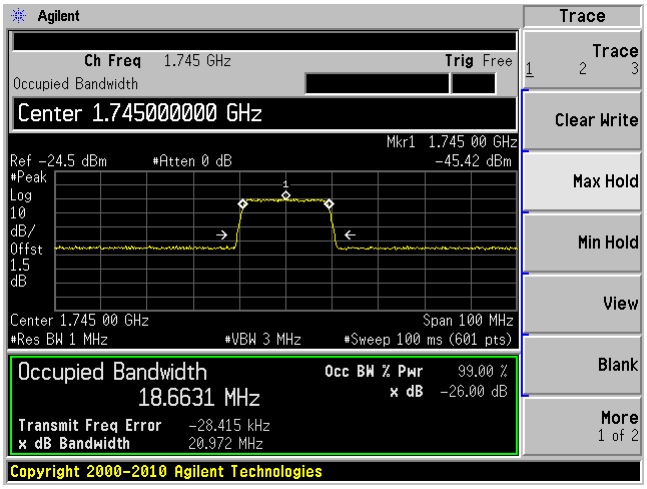
Middle I/P



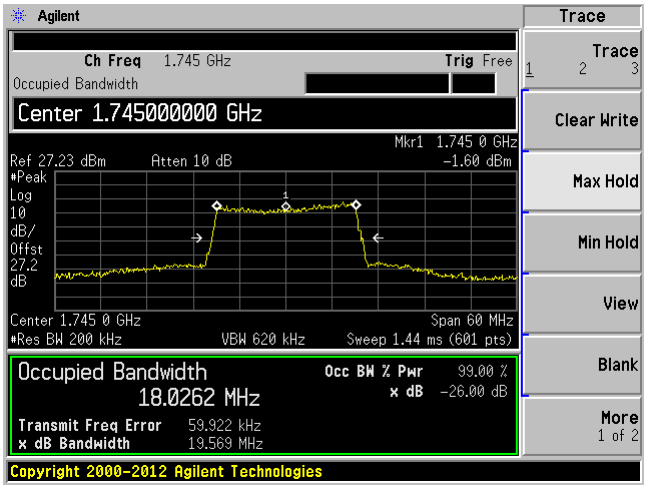
Middle O/P



High I/P

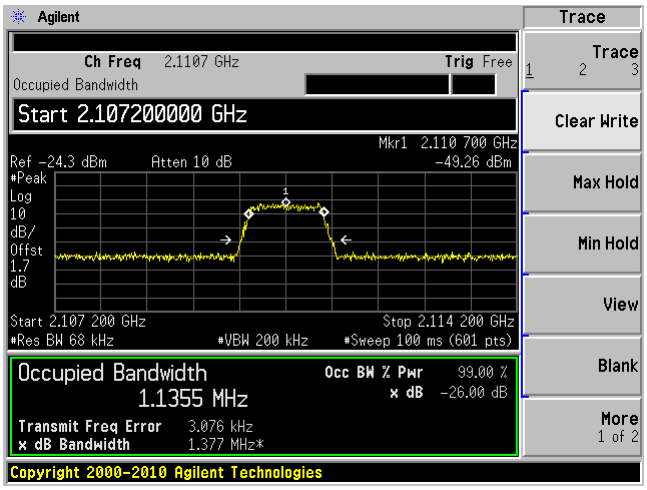


High O/P

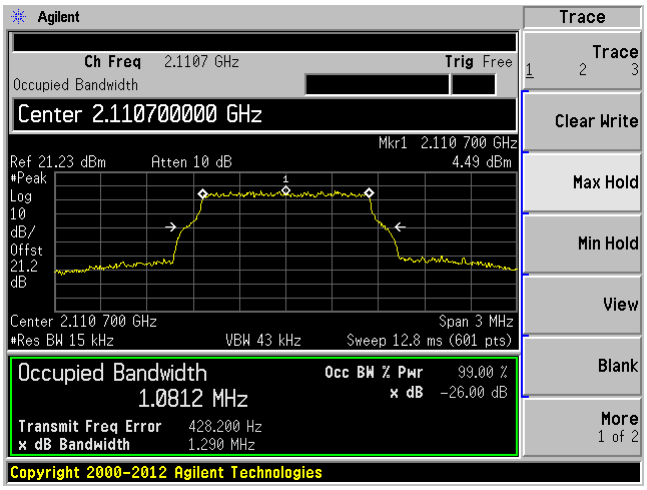


LTE Band 4, DL, 1.4 MHz, 64QAM

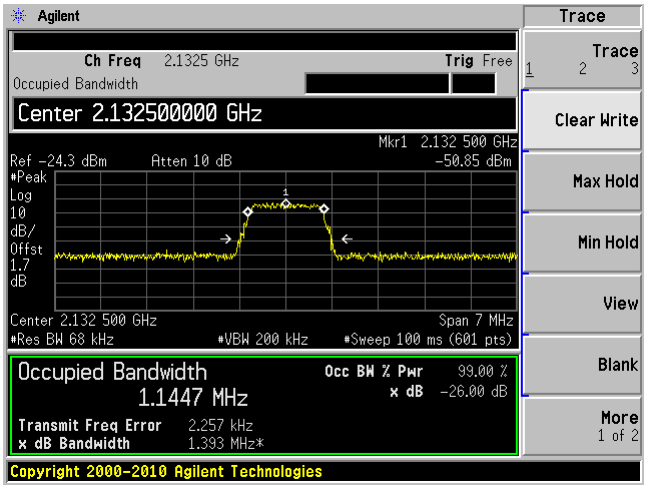
Low I/P



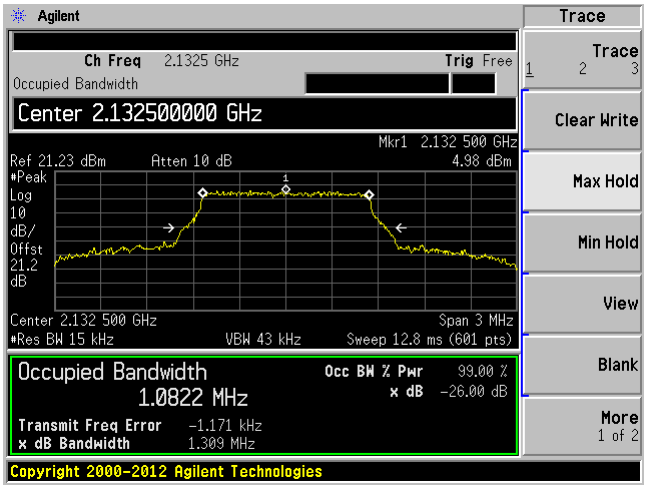
Low O/P



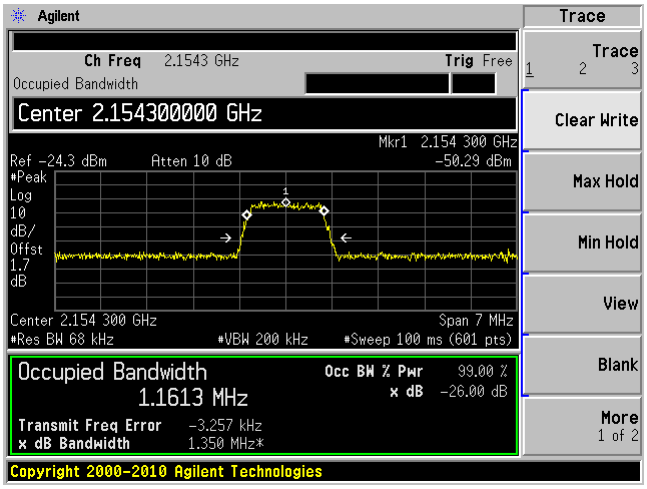
Middle I/P



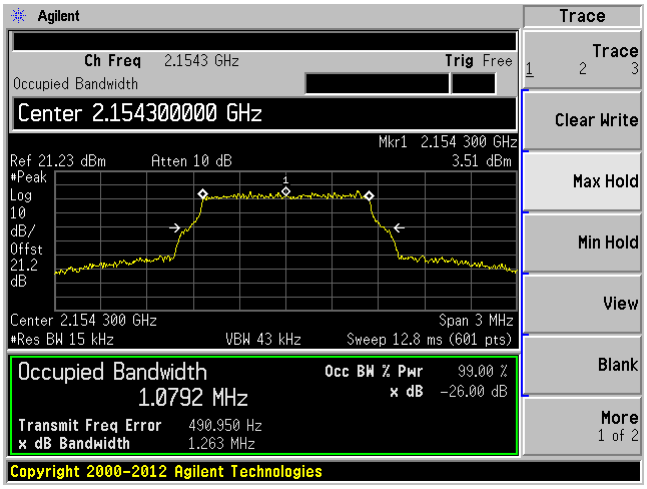
Middle O/P



High I/P

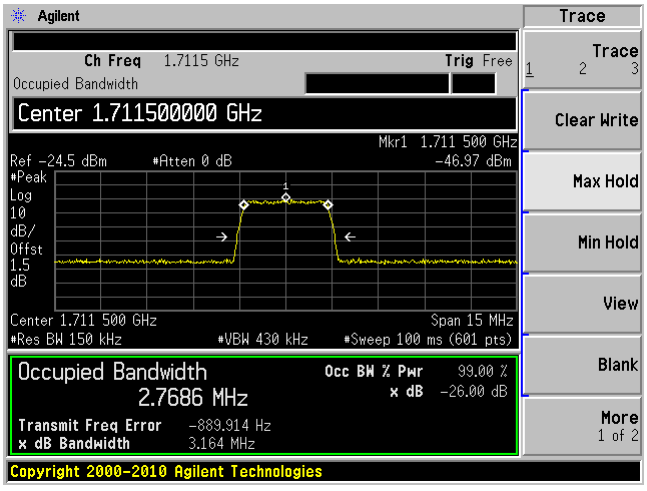


High O/P

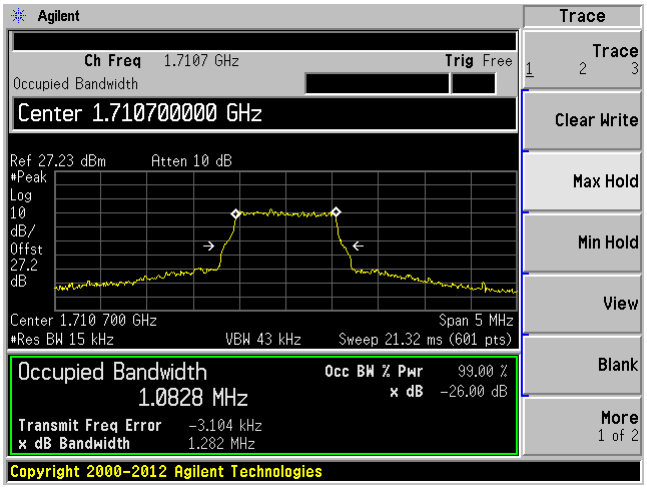


LTE Band 4, UL, 1.4 MHz, 64QAM

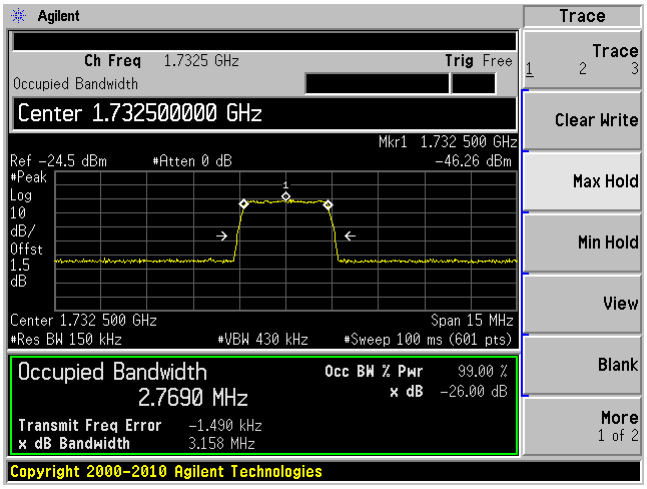
Low I/P



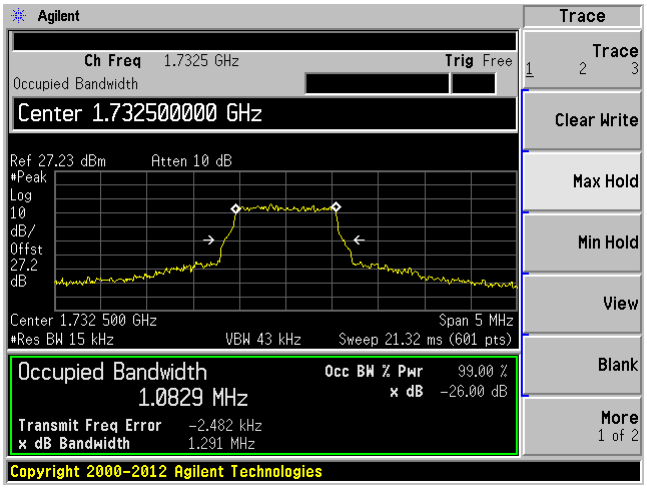
Low O/P



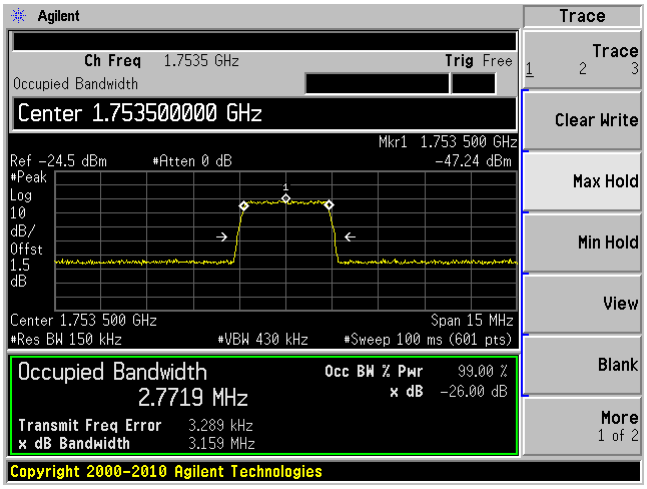
Middle I/P



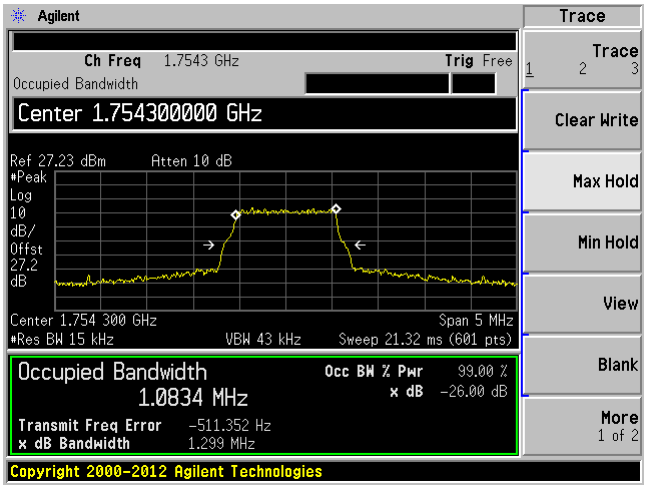
Middle O/P



High I/P

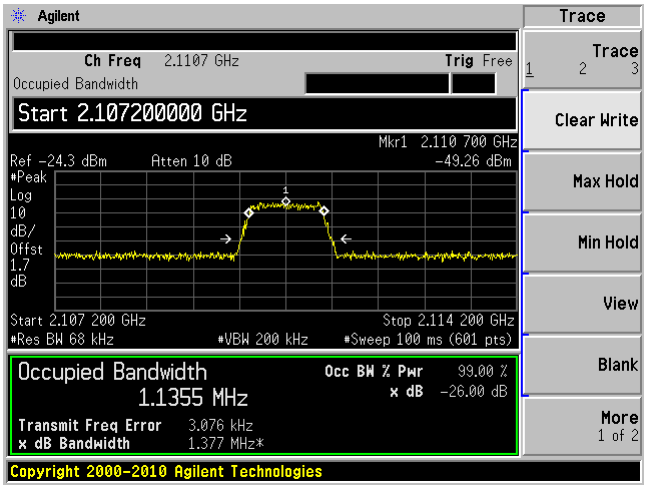


High O/P

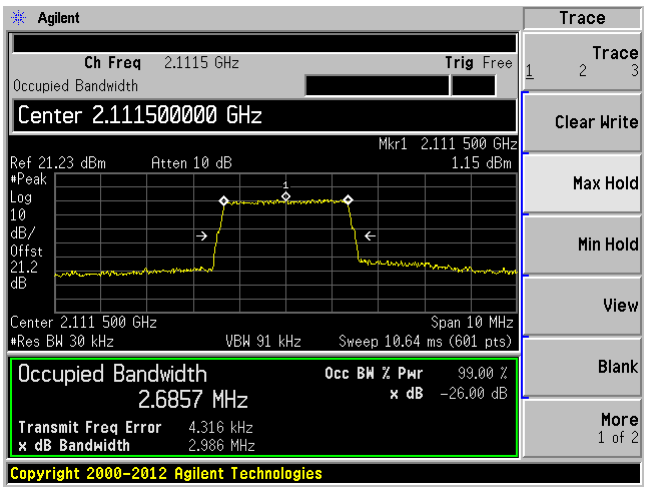


LTE Band 4, DL, 3 MHz, 64QAM

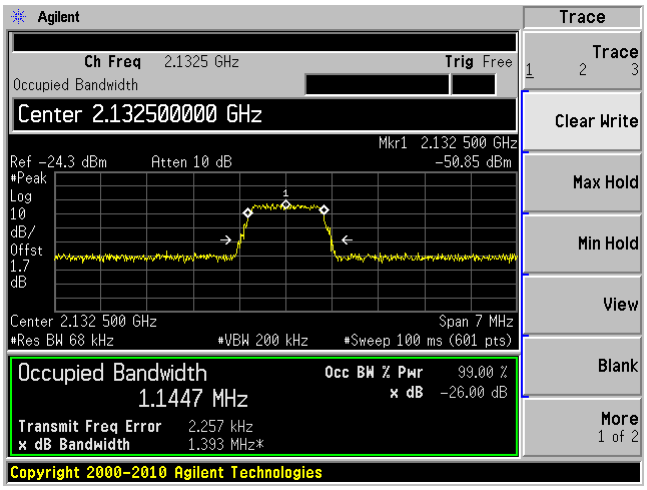
Low I/P



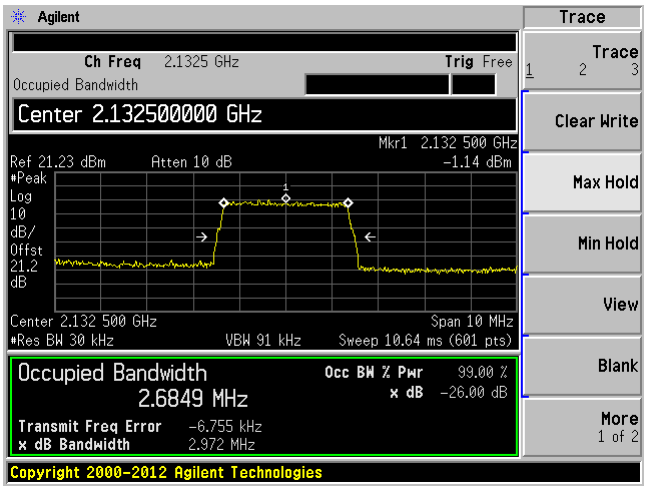
Low O/P



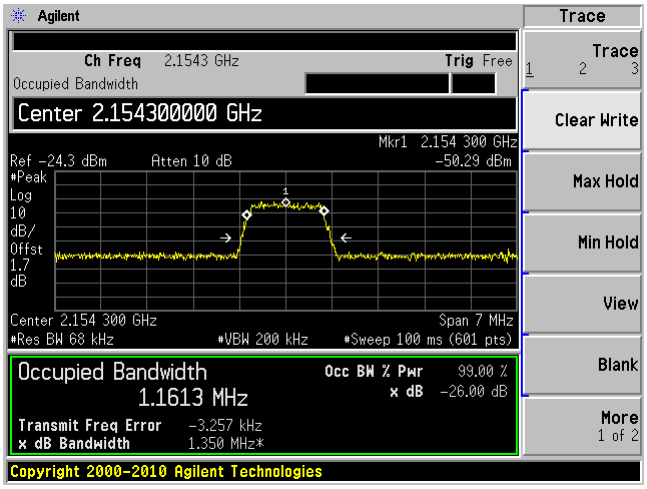
Middle I/P



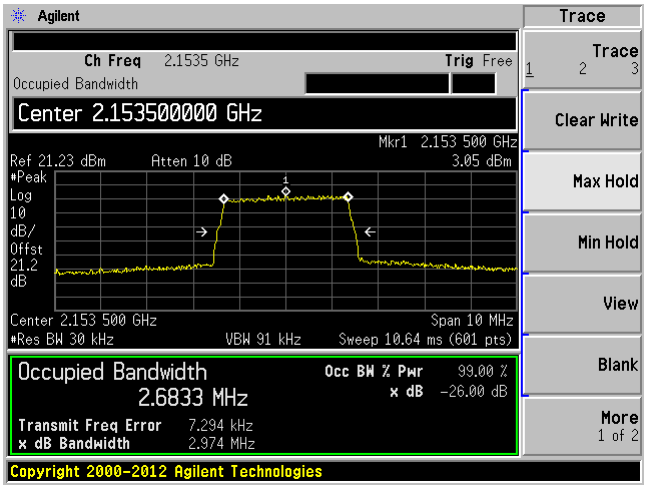
Middle O/P



High I/P

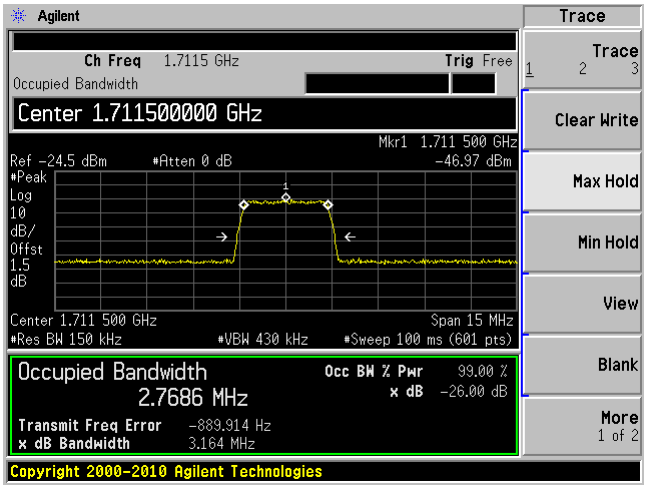


High O/P

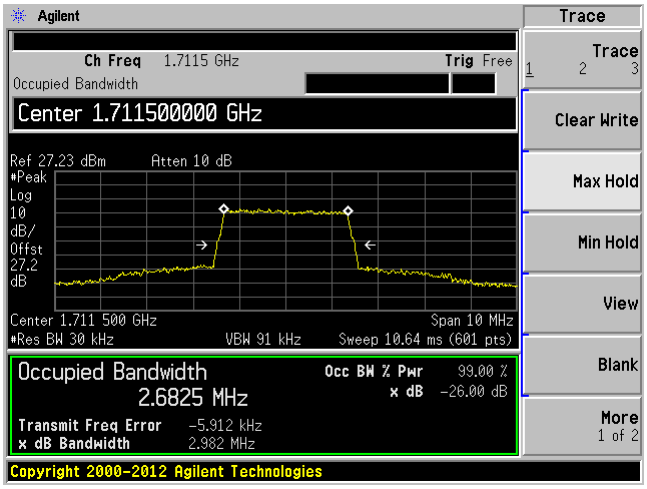


LTE Band 4, UL, 3 MHz, 64QAM

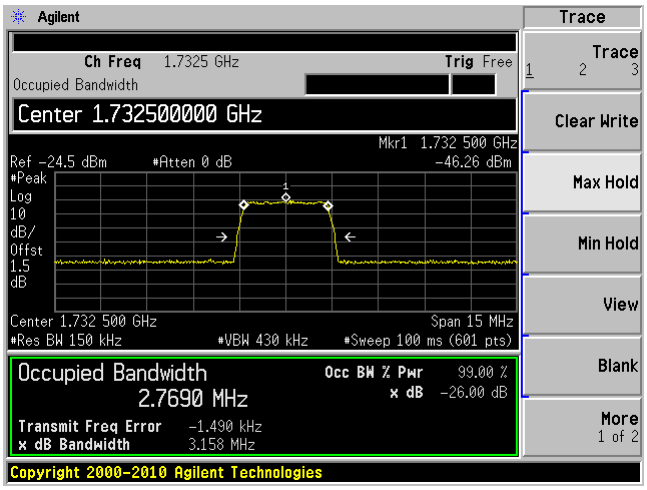
Low I/P



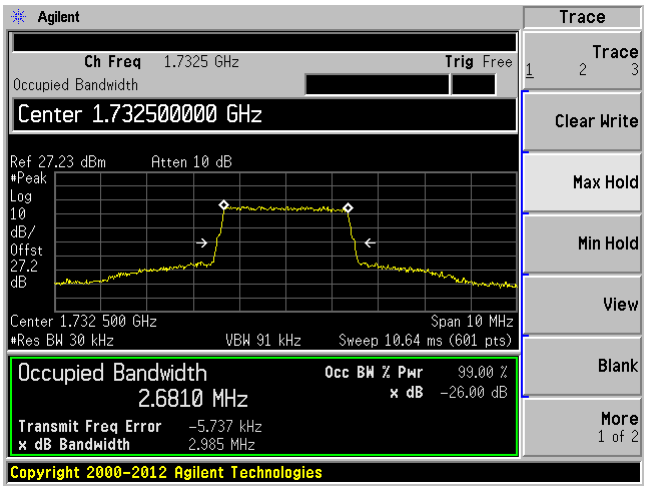
Low O/P



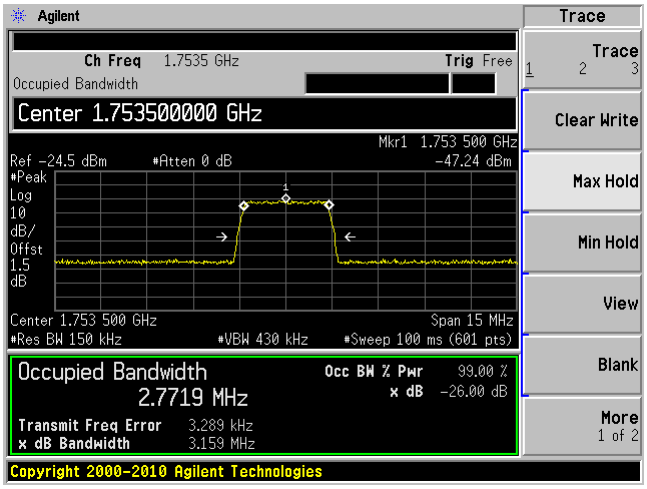
Middle I/P



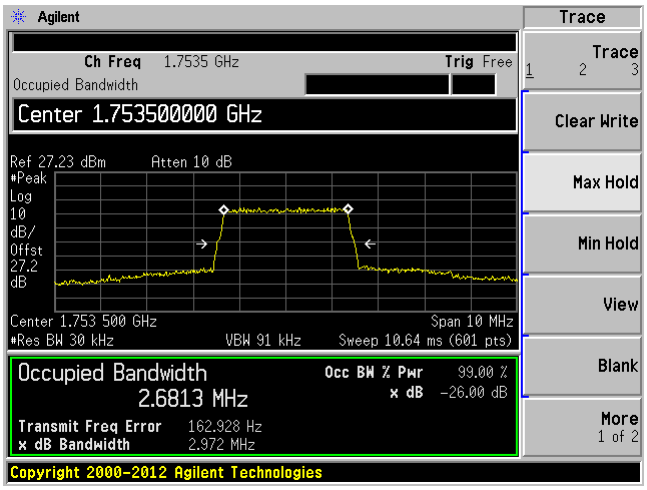
Middle O/P



High I/P

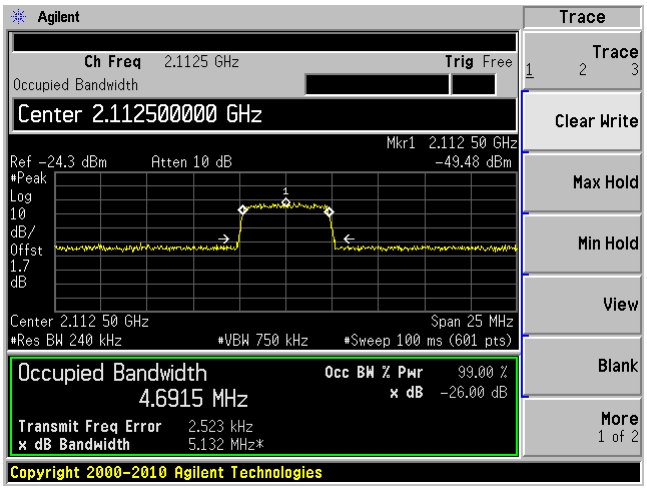


High O/P

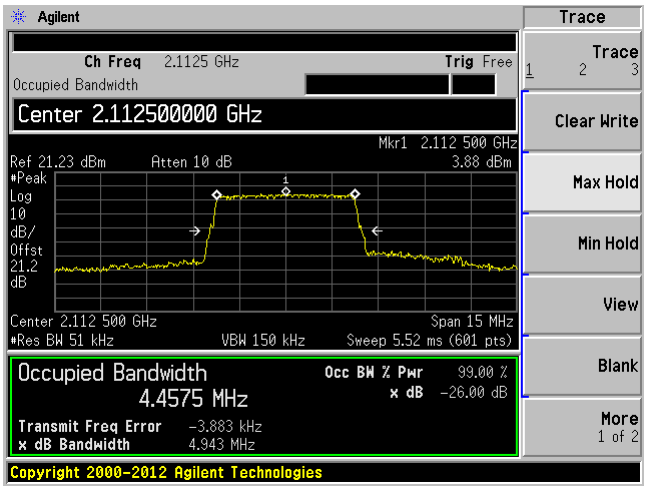


LTE Band 4, DL, 5 MHz, 64QAM

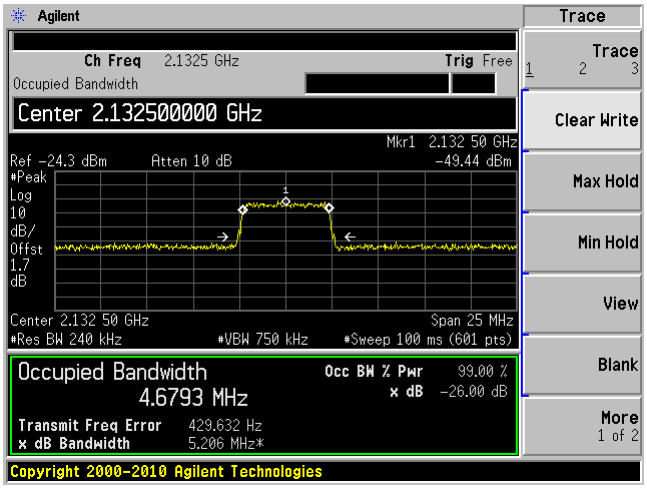
Low I/P



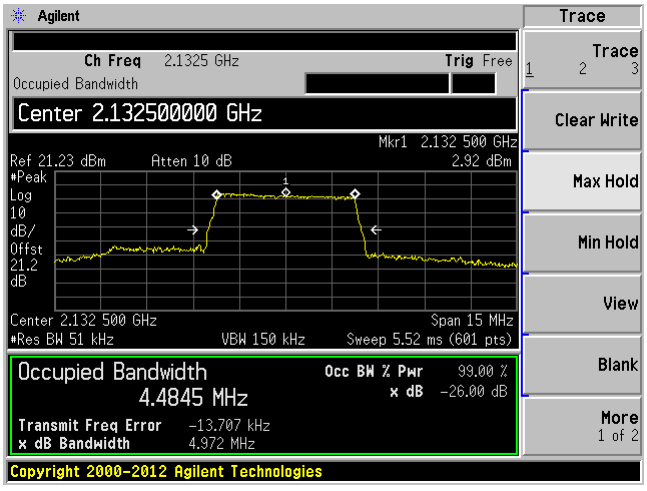
Low O/P



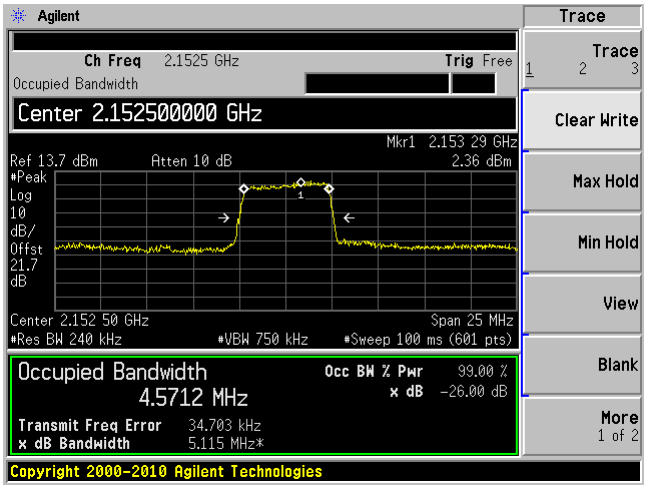
Middle I/P



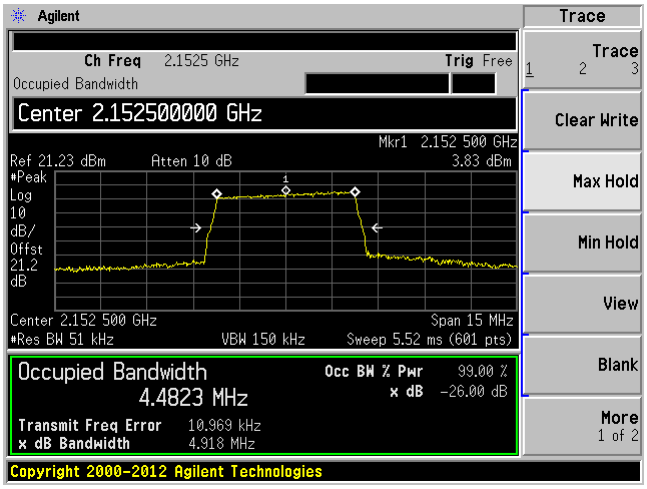
Middle O/P



High I/P

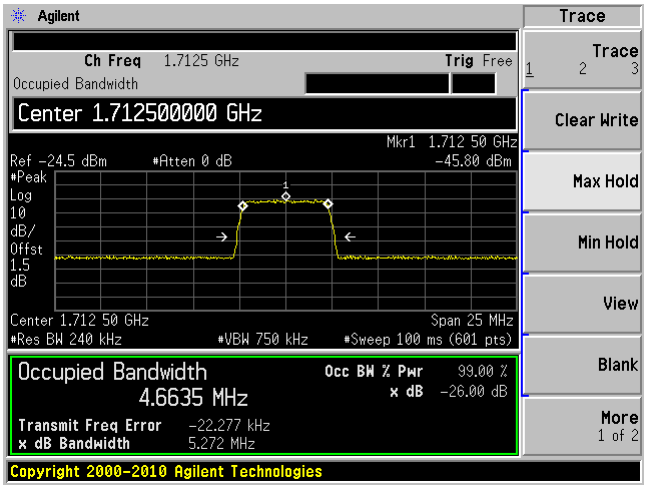


High O/P

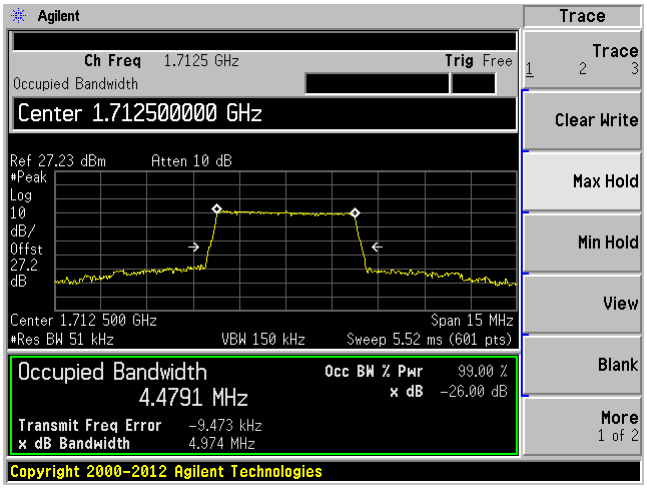


LTE Band 4, UL, 5 MHz, 64QAM

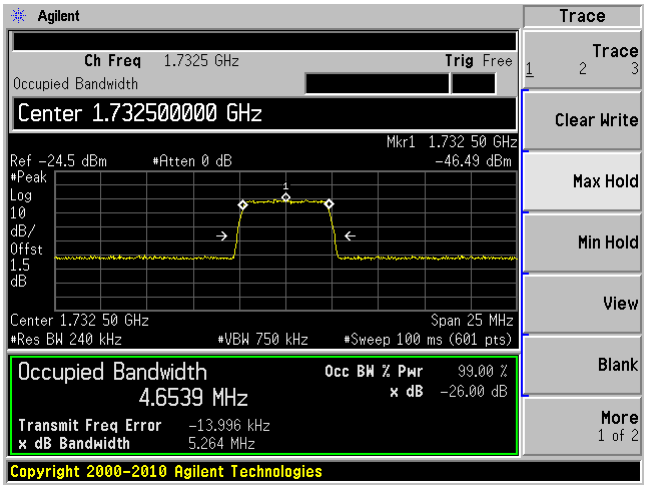
Low I/P



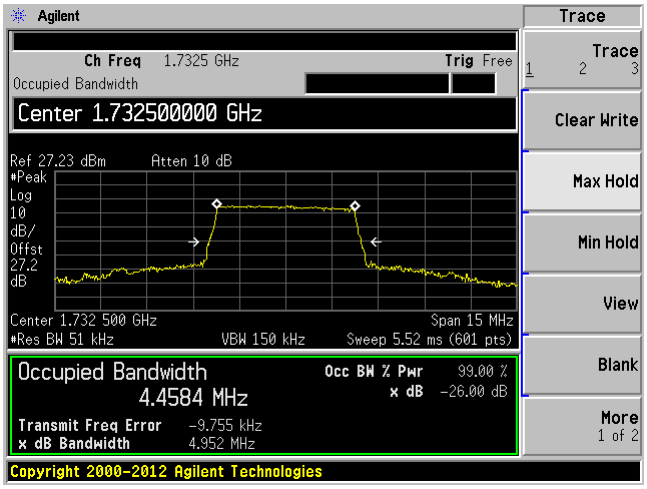
Low O/P



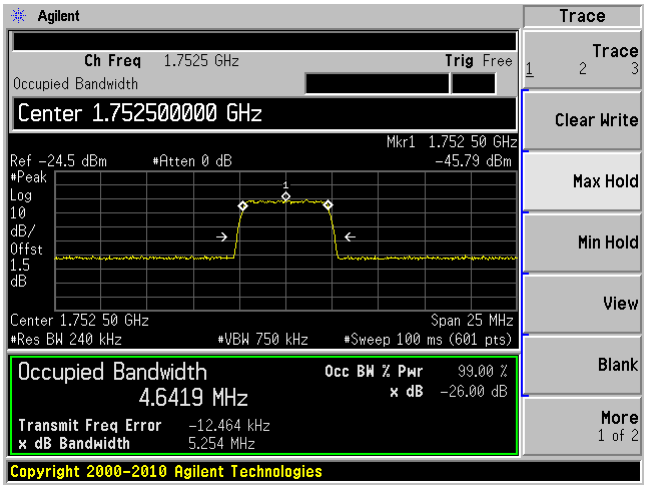
Middle I/P



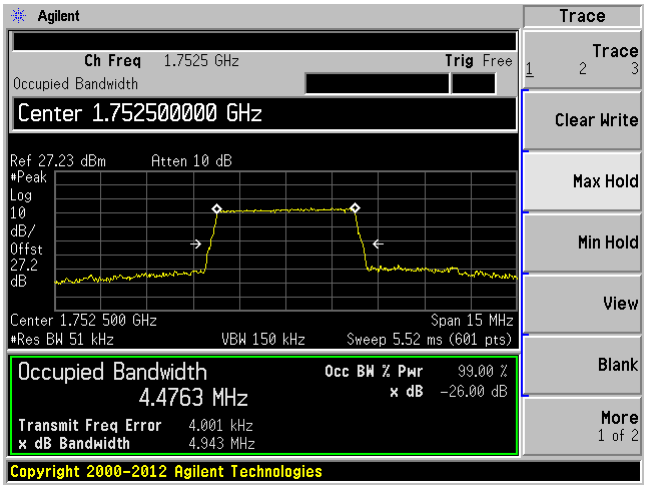
Middle O/P



High I/P

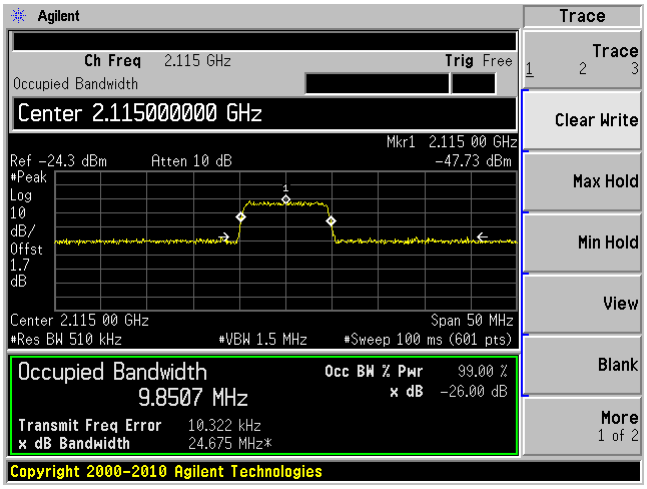


High O/P

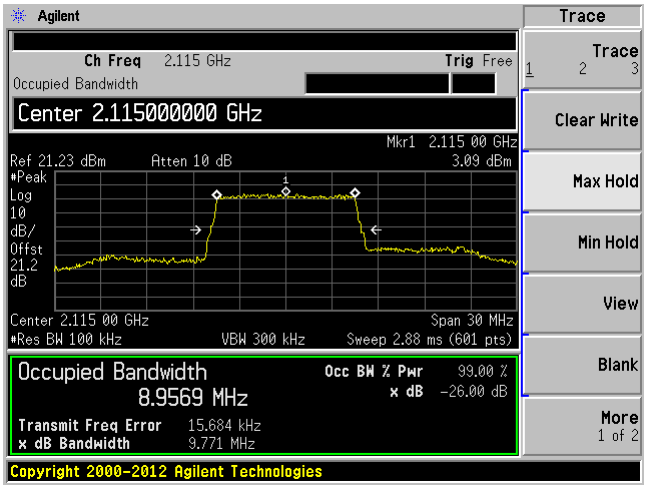


LTE Band 4, DL, 10 MHz, 64QAM

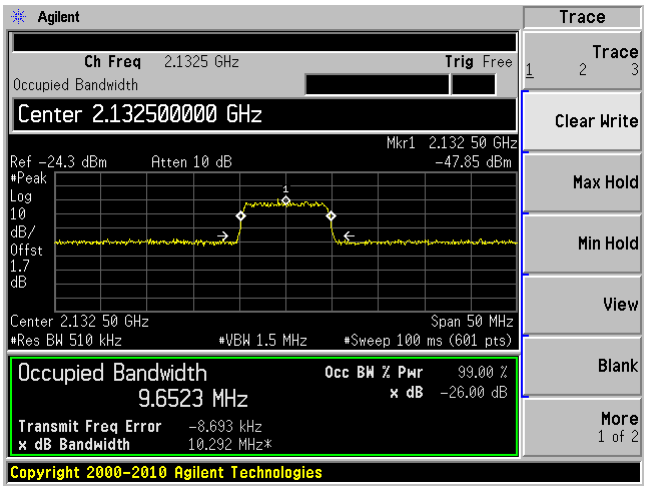
Low I/P



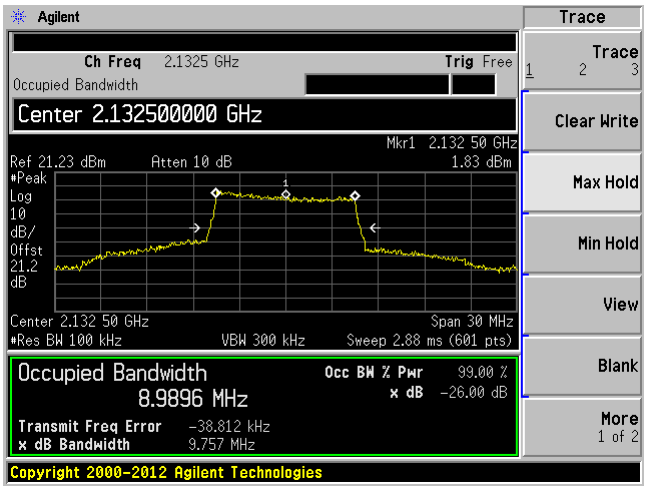
Low O/P



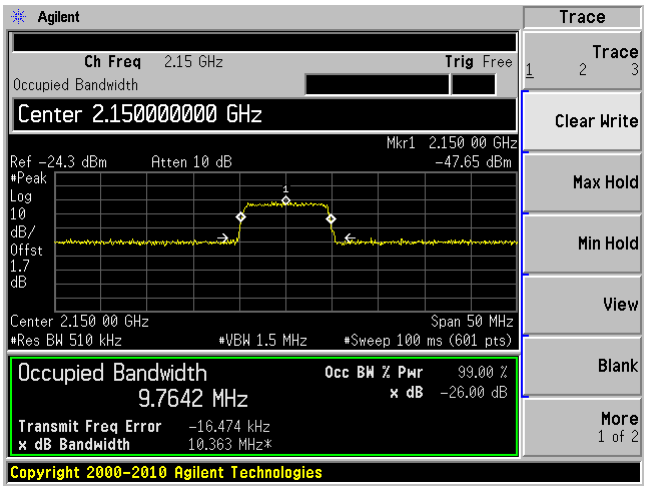
Middle I/P



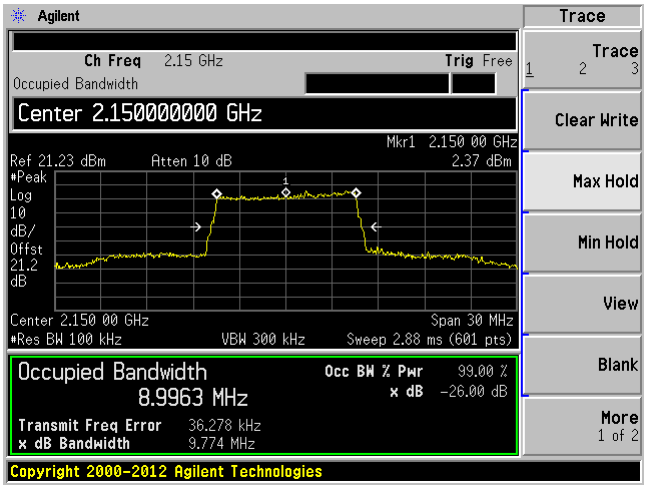
Middle O/P



High I/P

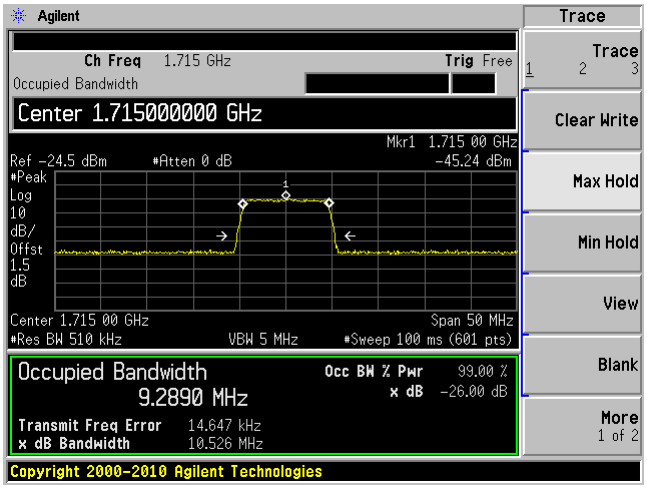


High O/P

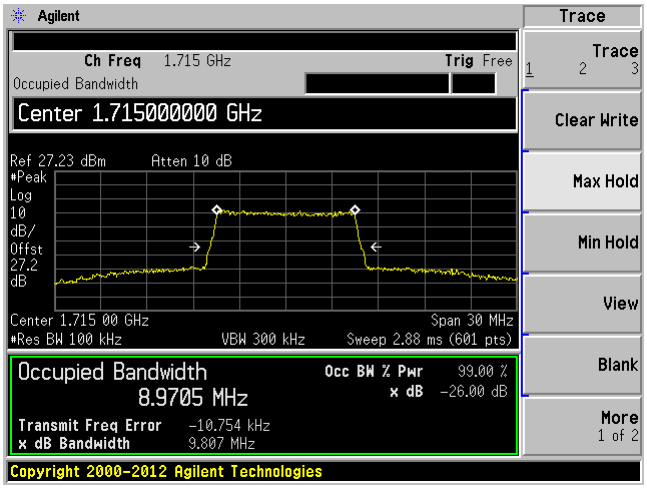


LTE Band 4, UL, 10 MHz, 64QAM

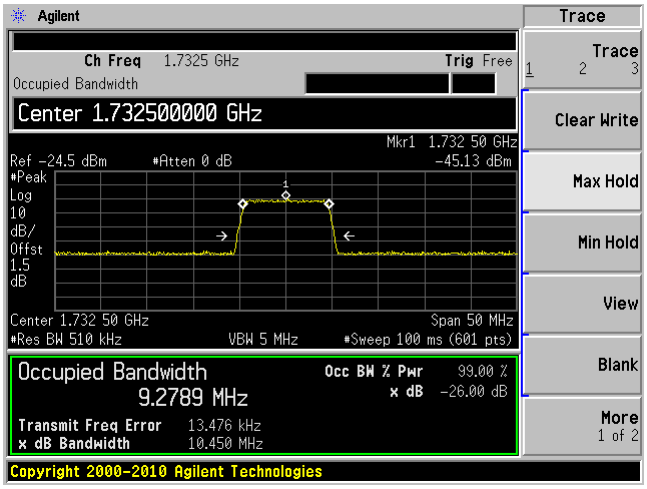
Low I/P



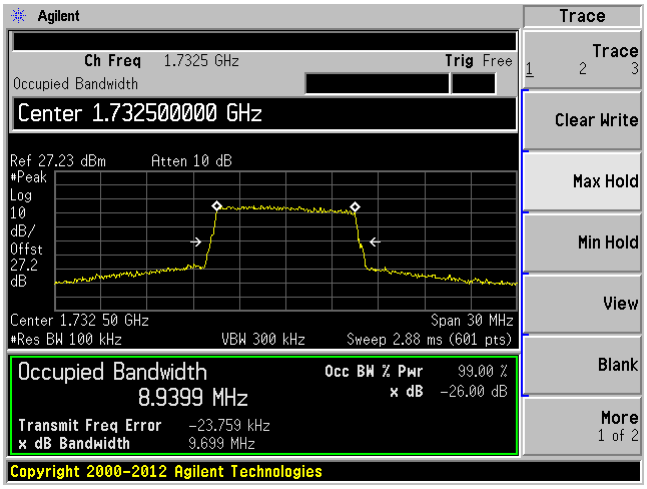
Low O/P



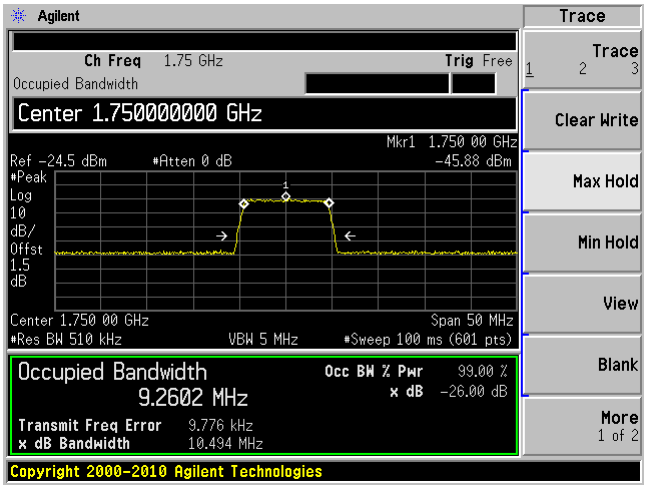
Middle I/P



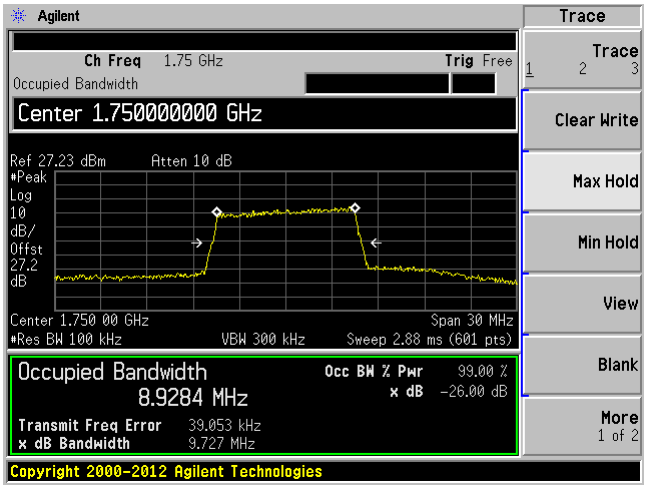
Middle O/P



High I/P

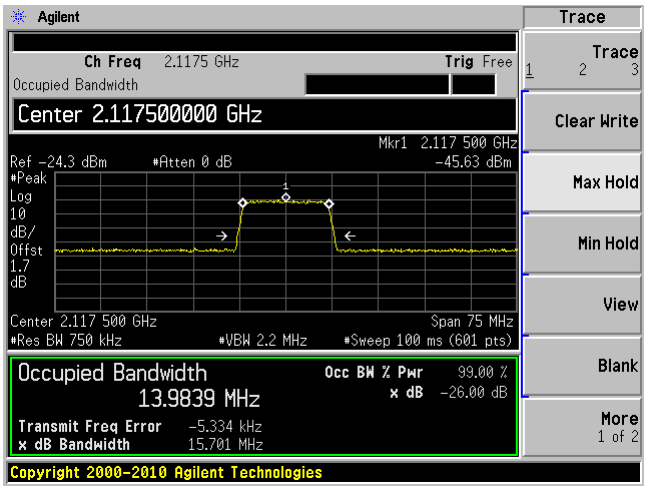


High O/P

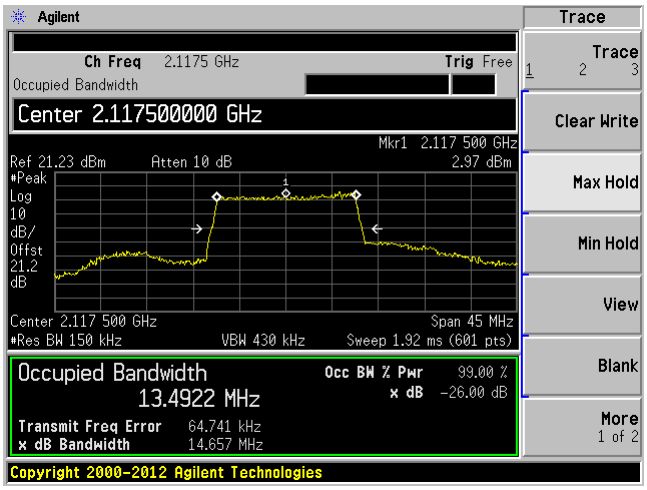


LTE Band 4, DL, 15 MHz, 64QAM

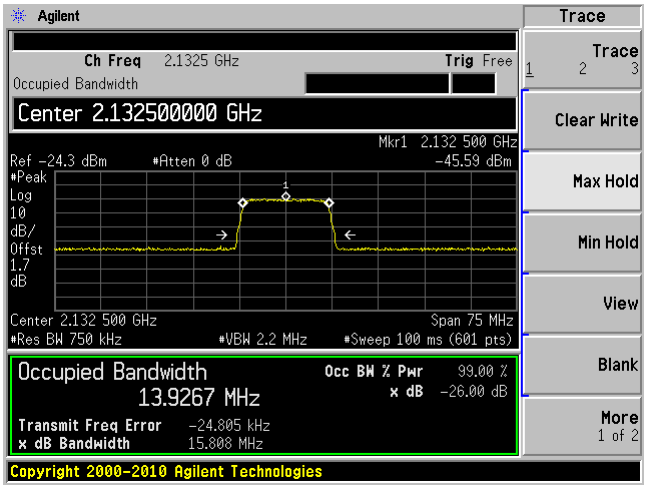
Low I/P



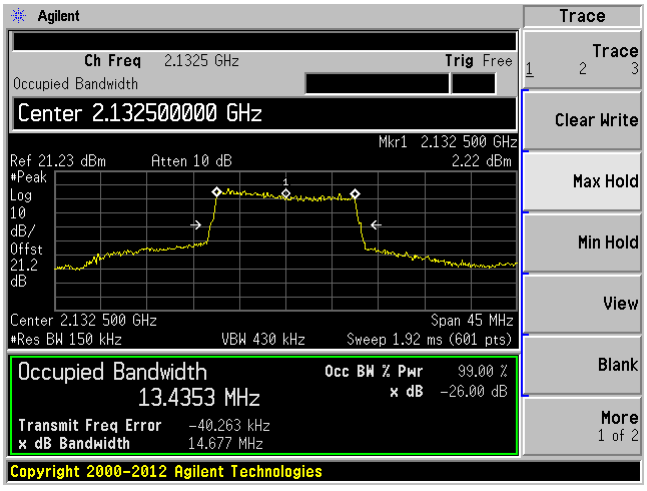
Low O/P



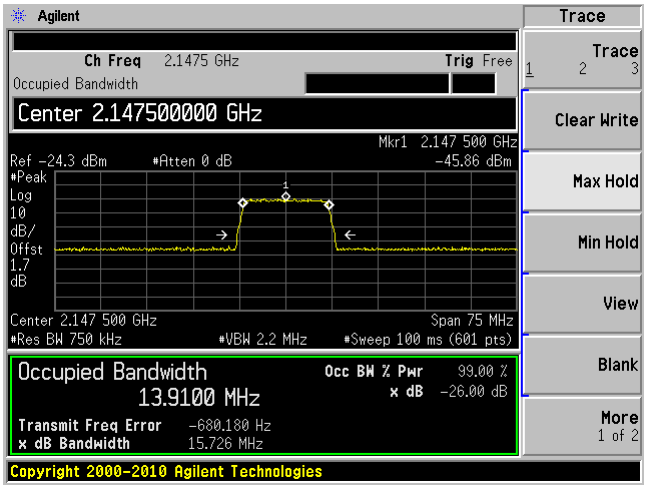
Middle I/P



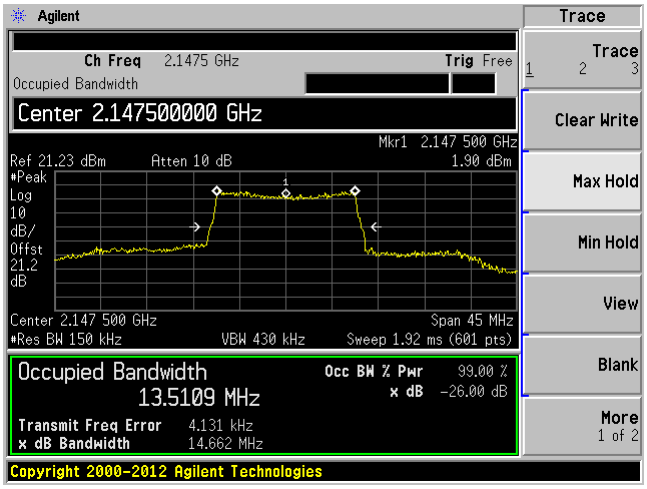
Middle O/P



High I/P

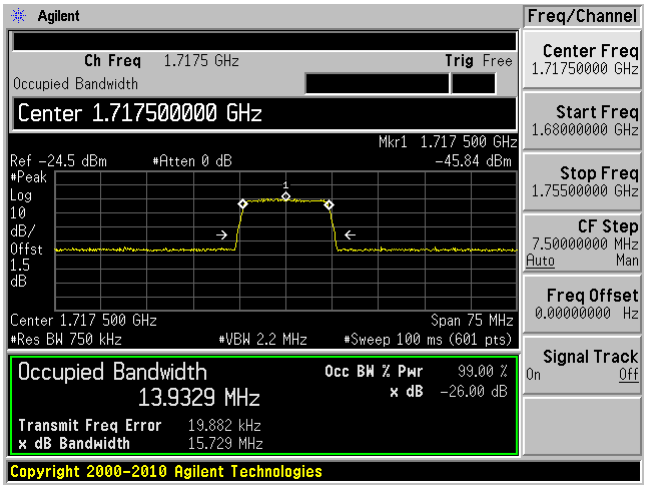


High O/P

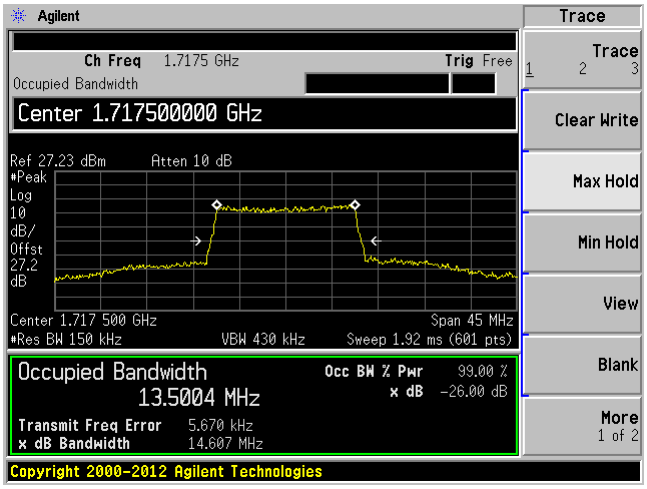


LTE Band 4, UL, 15 MHz, 64QAM

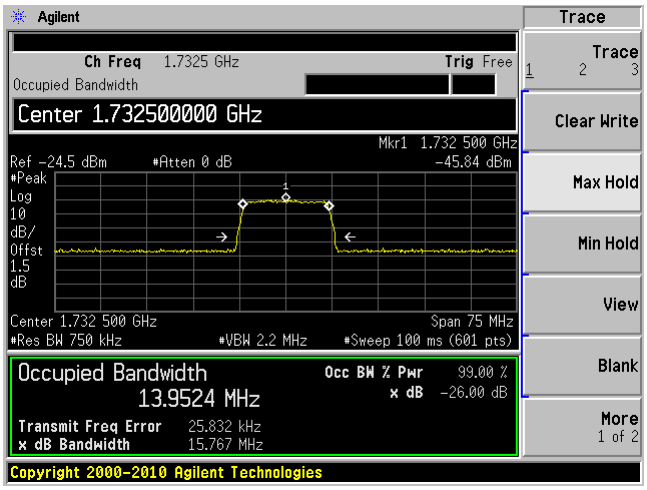
Low I/P



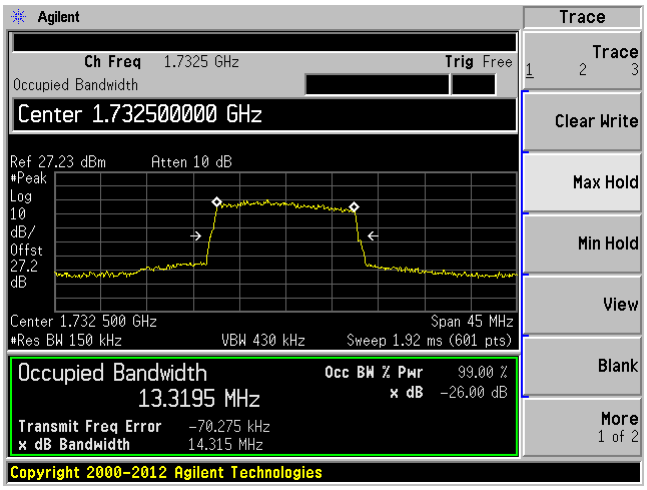
Low O/P



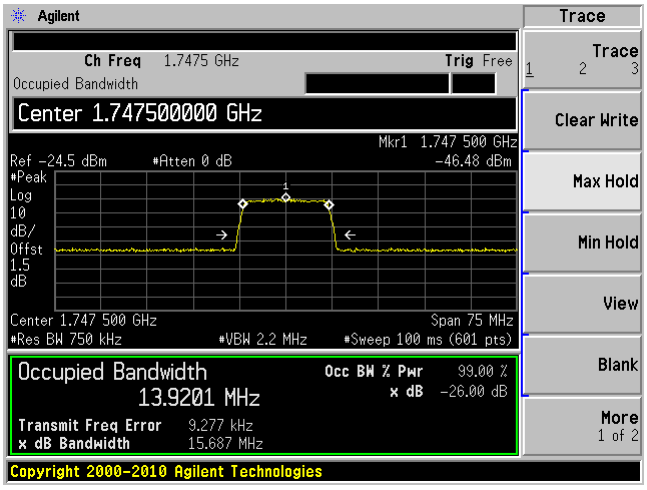
Middle I/P



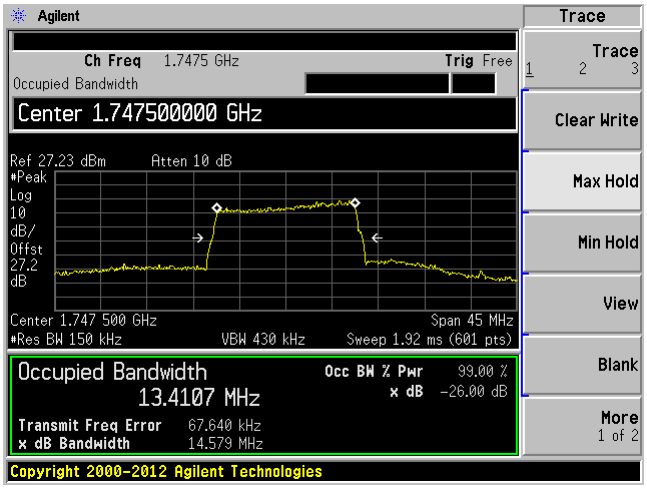
Middle O/P



High I/P

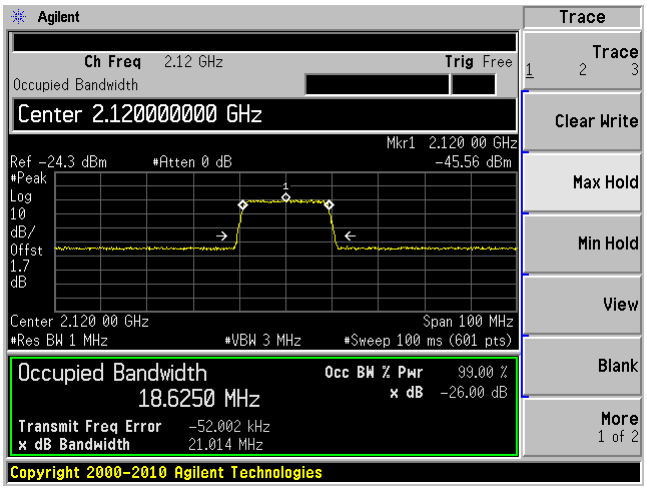


High O/P

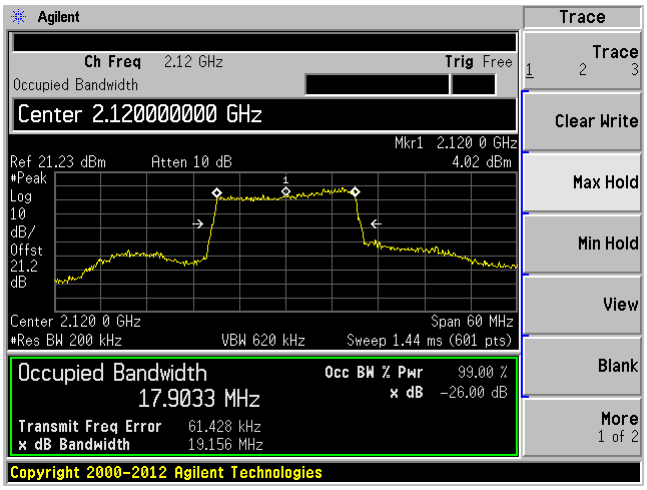


LTE Band 4, DL, 20 MHz, 64QAM

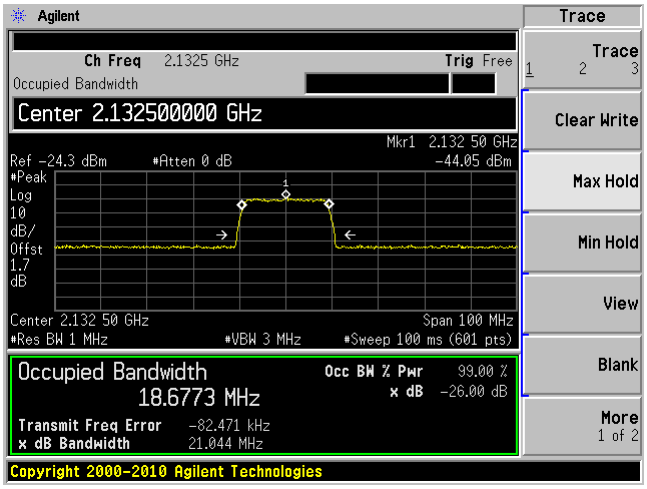
Low I/P



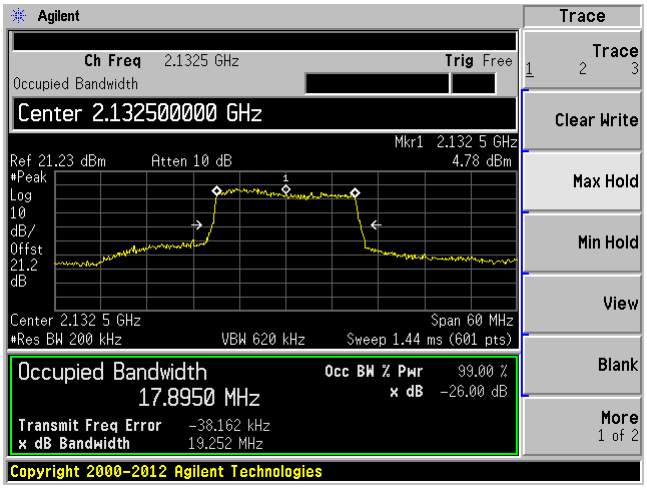
Low O/P



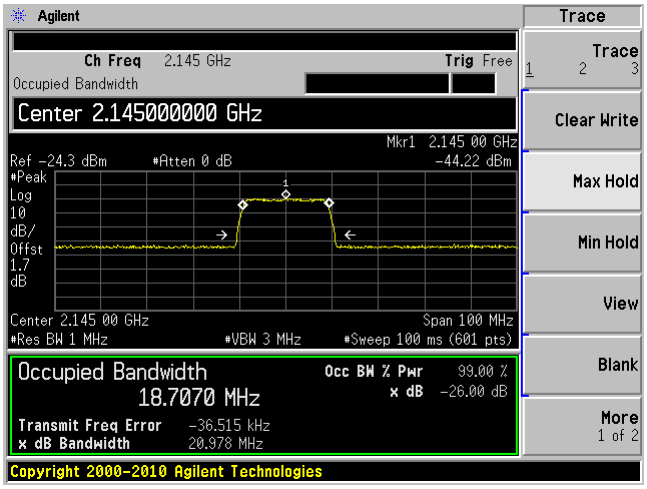
Middle I/P



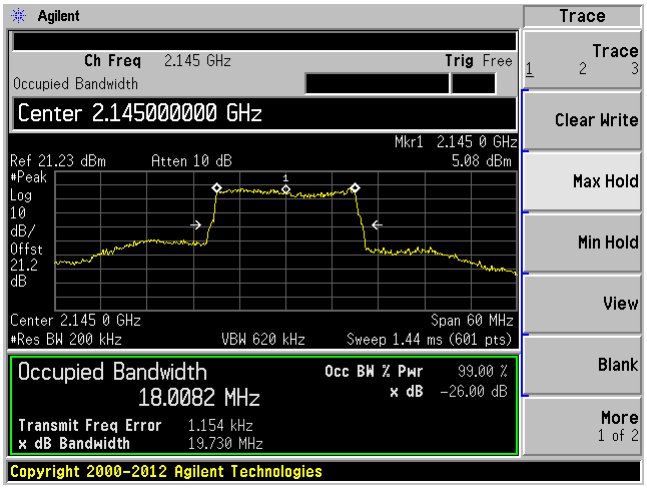
Middle O/P



High I/P

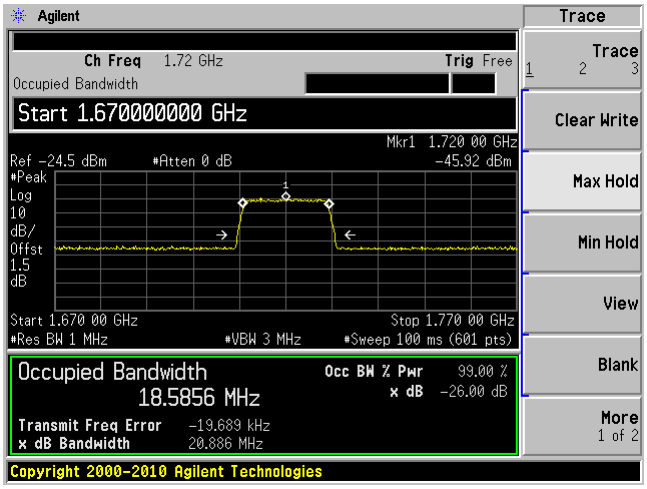


High O/P

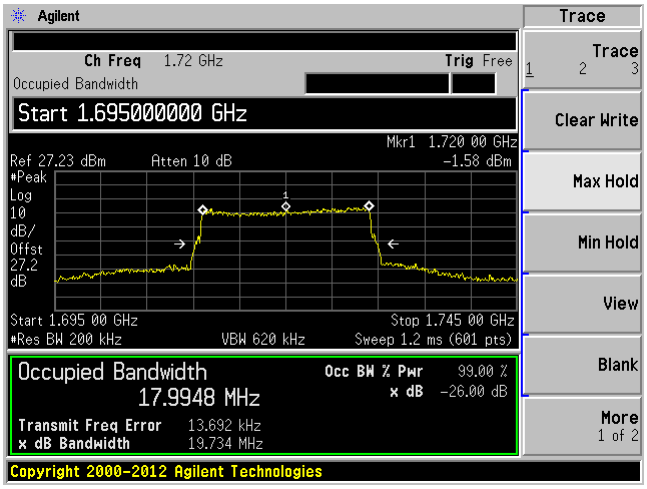


LTE Band 4, UL, 20 MHz, 64QAM

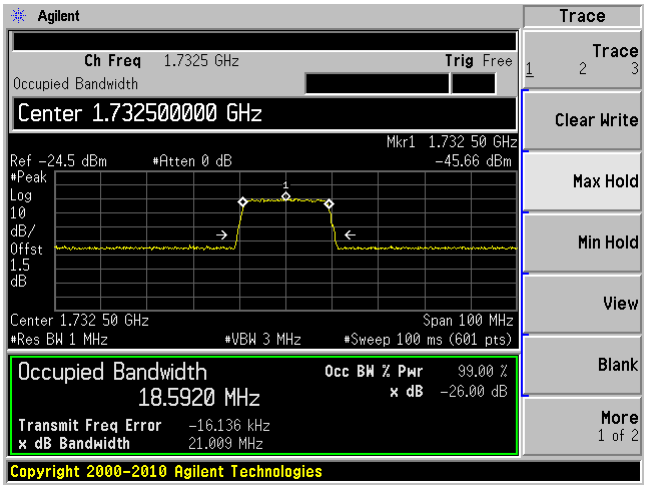
Low I/P



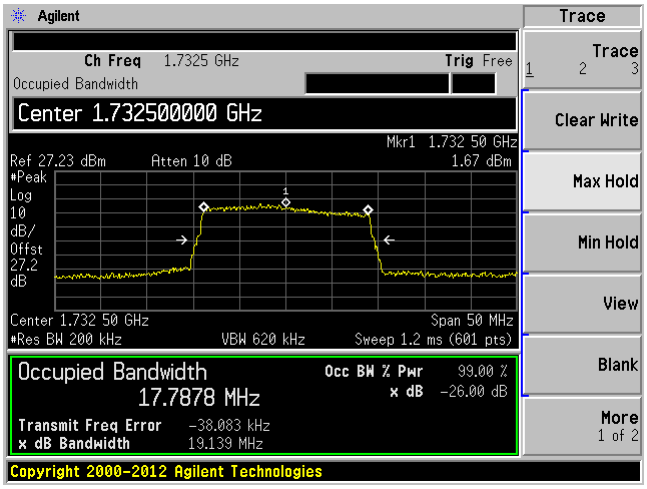
Low O/P



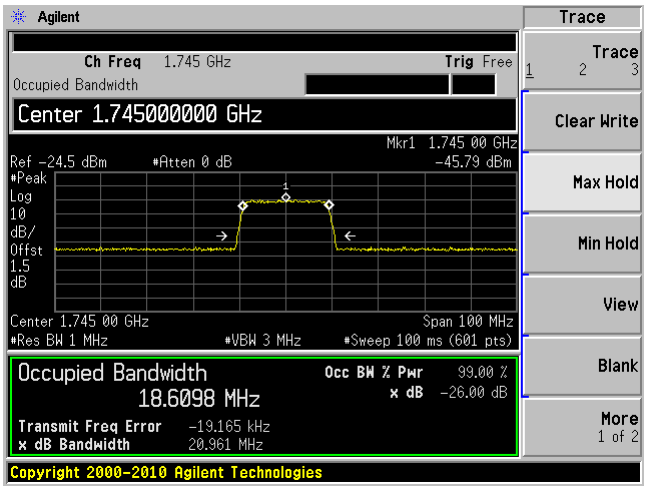
Middle I/P



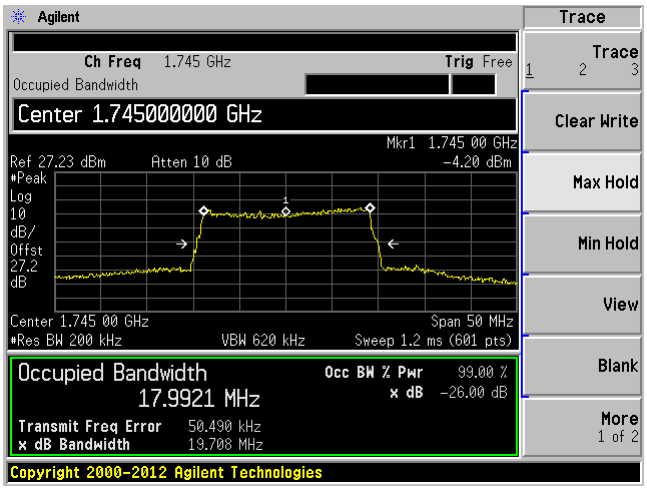
Middle O/P



High I/P

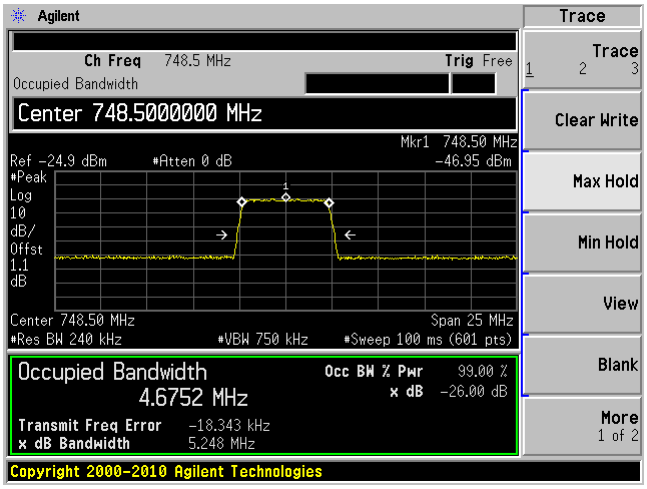


High O/P

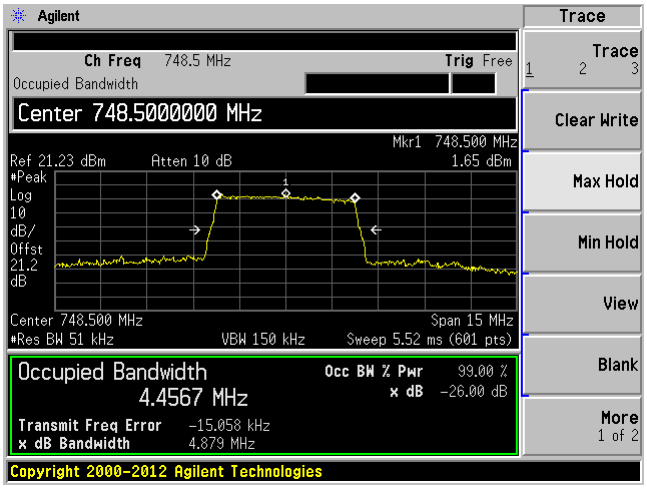


LTE Band 13, DL, 5 MHz, QPSK

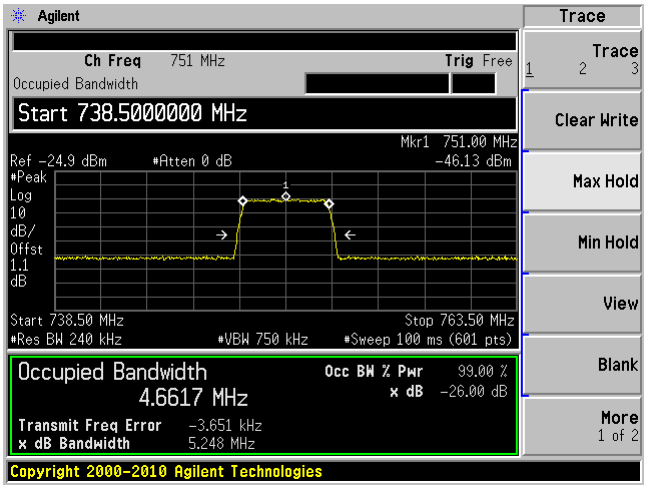
Low I/P



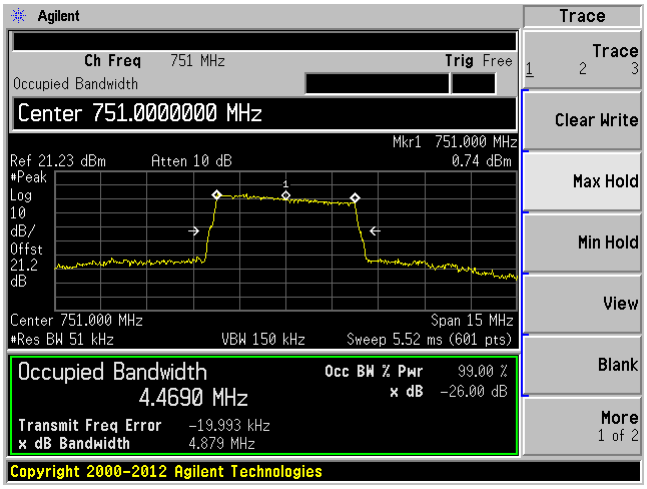
Low O/P



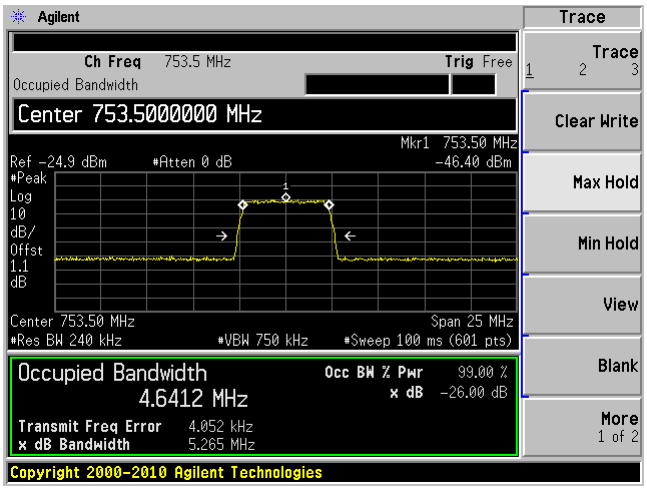
Middle I/P



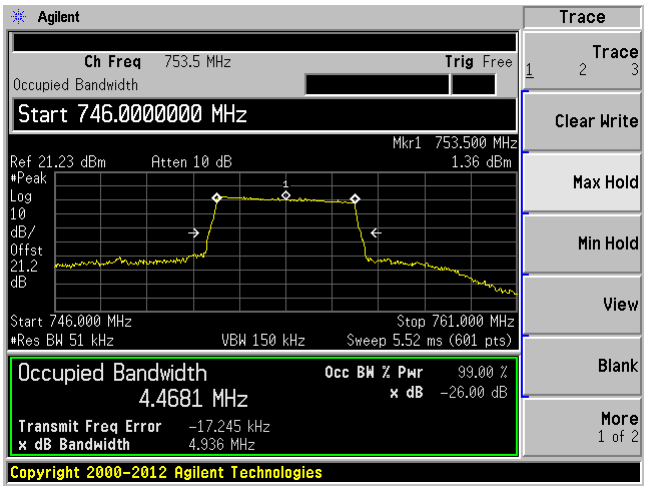
Middle O/P



High I/P

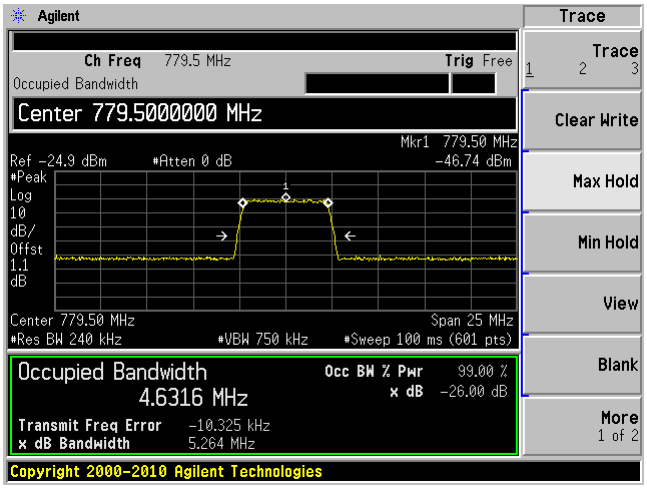


High O/P

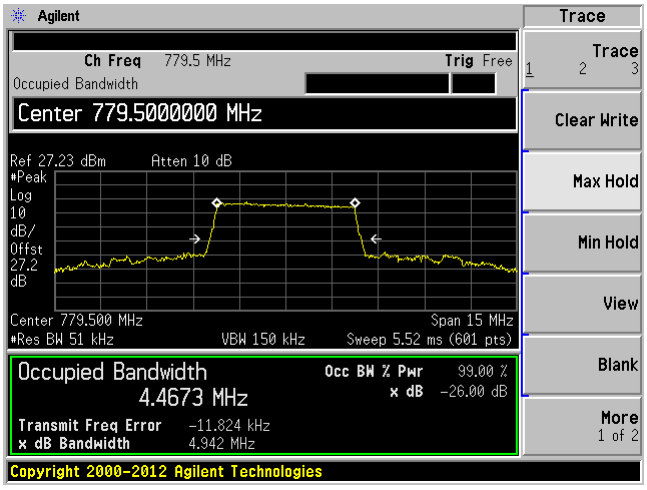


LTE Band 13, UL, 5 MHz, QPSK

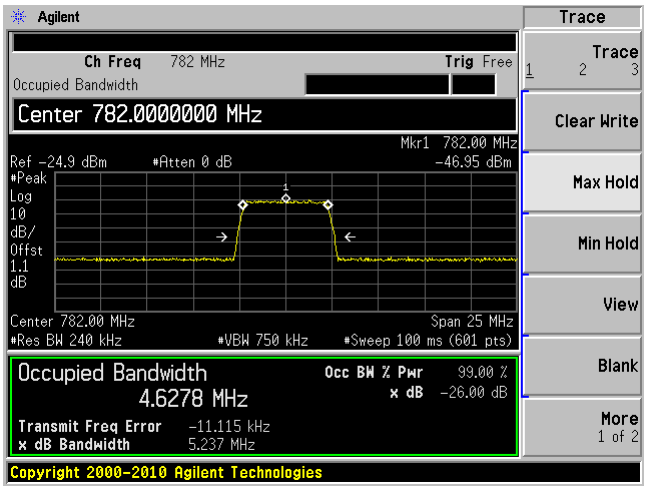
Low I/P



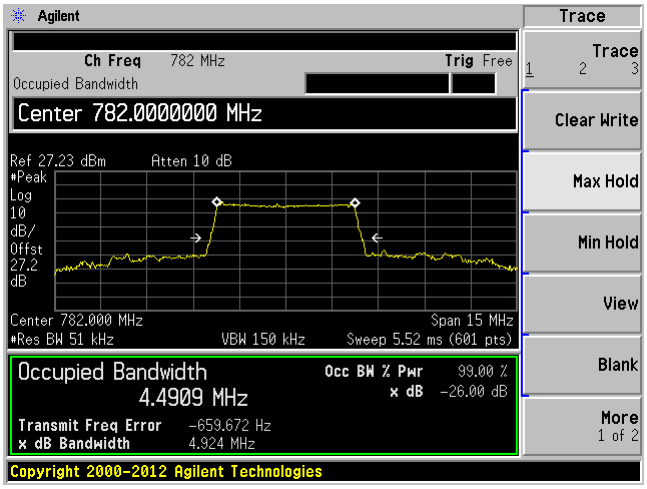
Low O/P



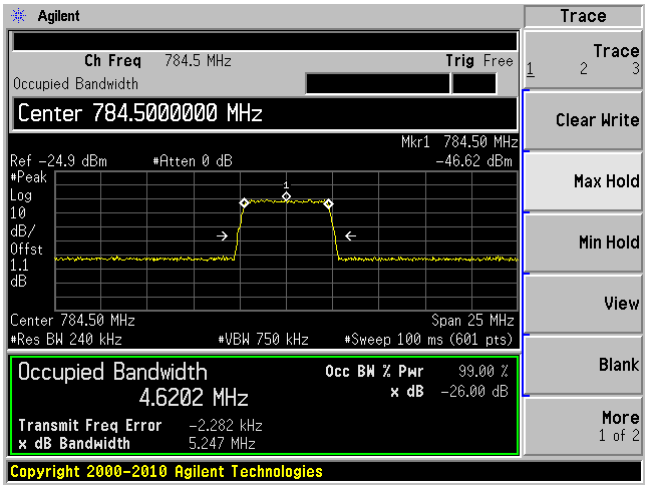
Middle I/P



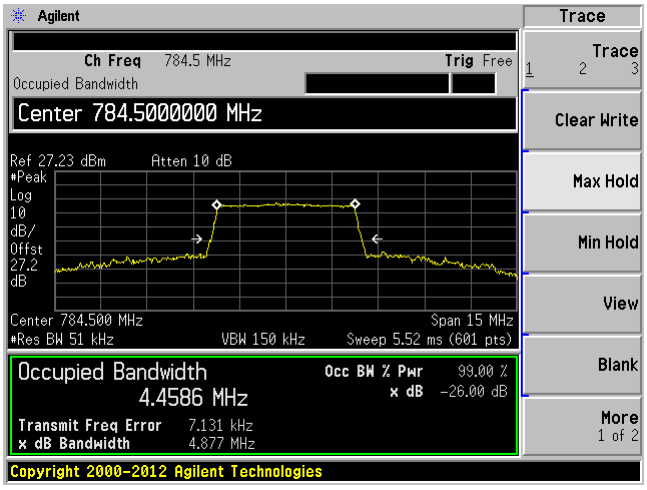
Middle O/P



High I/P

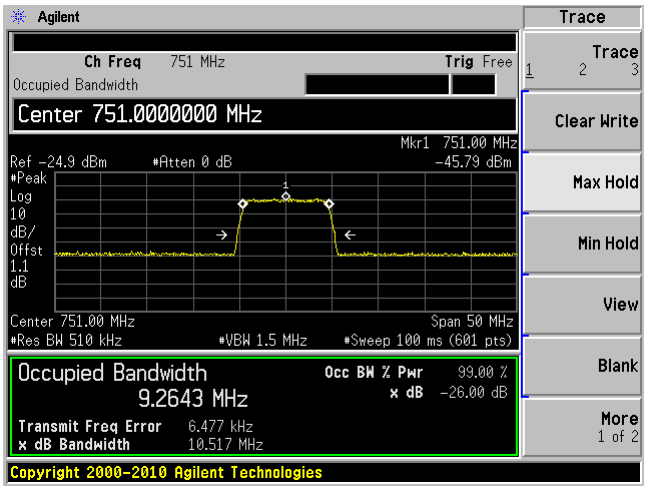


High O/P

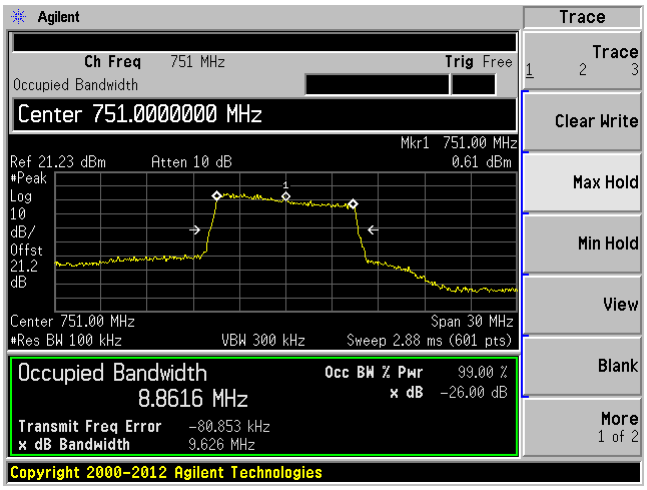


LTE Band 13, DL, 10 MHz, QPSK

Middle I/P

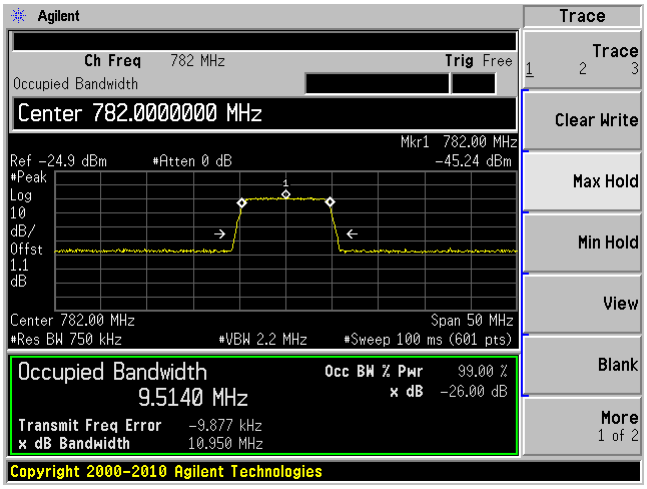


Middle O/P

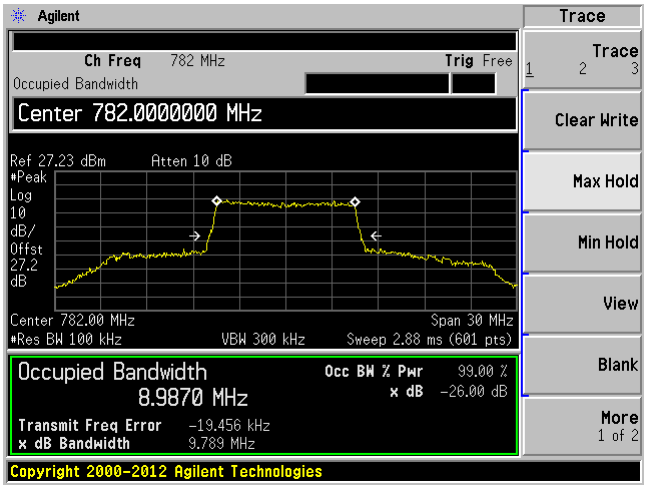


LTE Band 13, UL, 10 MHz, QPSK

Middle I/P

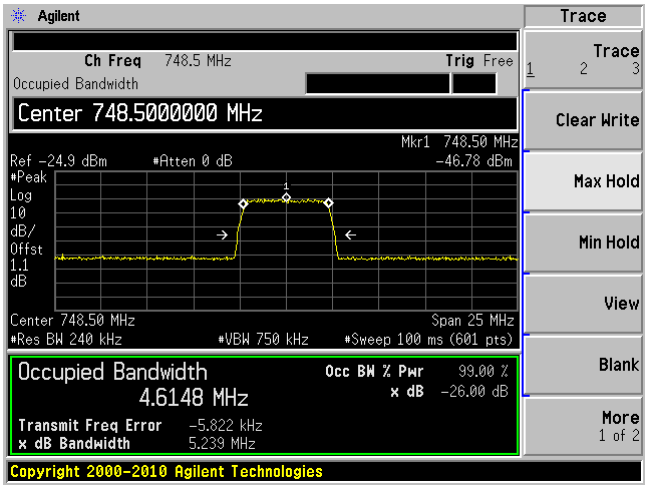


Middle O/P

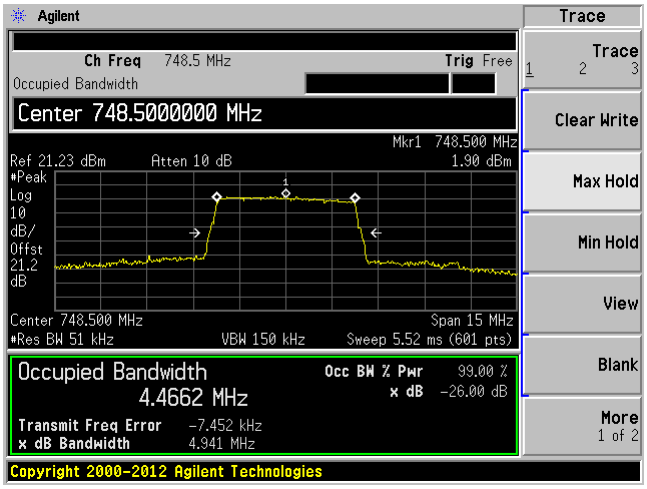


LTE Band 13, DL, 5 MHz, 16QAM

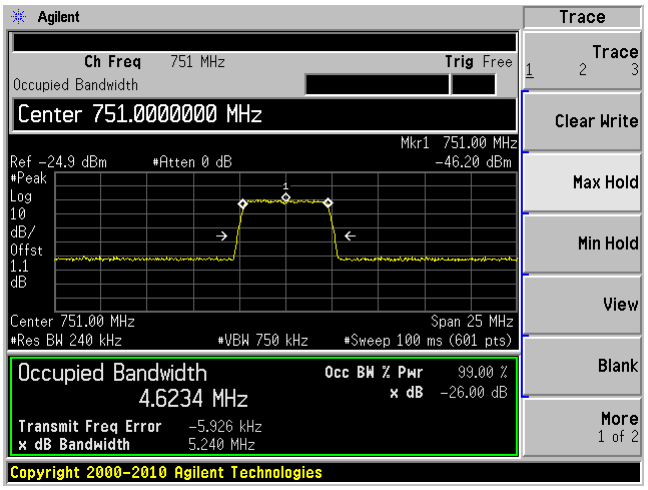
Low I/P



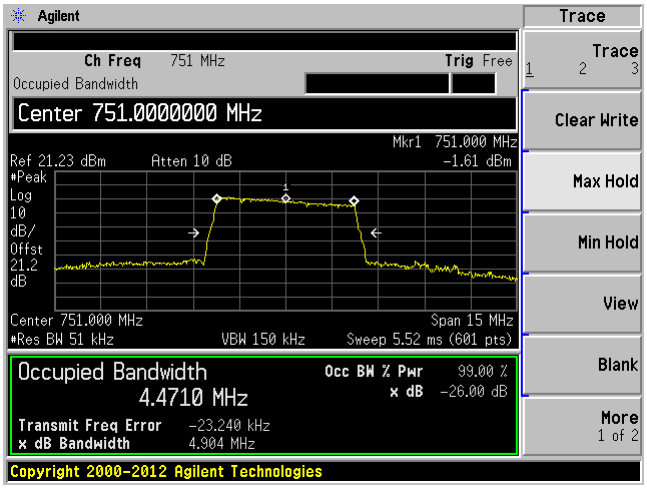
Low O/P



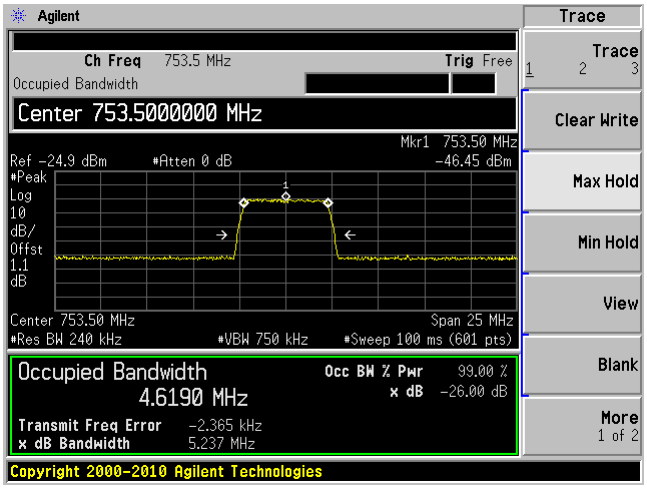
Middle I/P



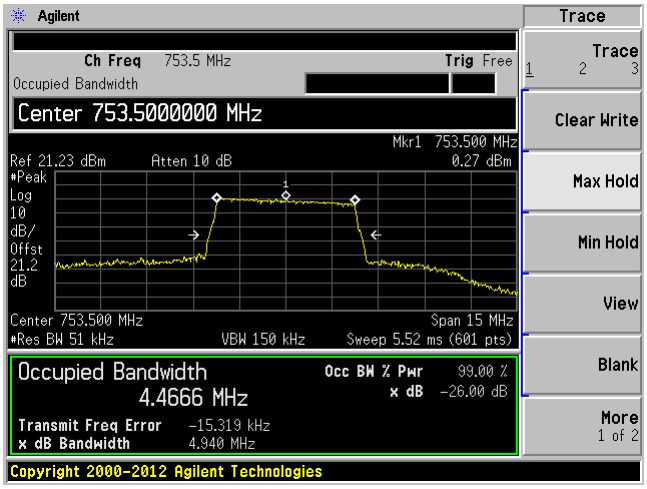
Middle O/P



High I/P

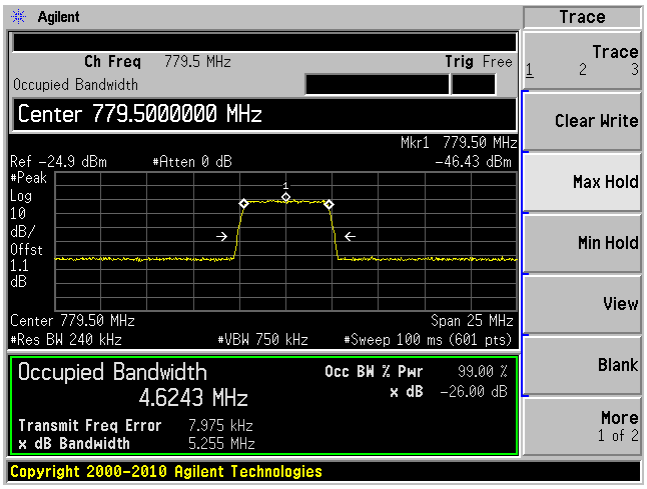


High O/P

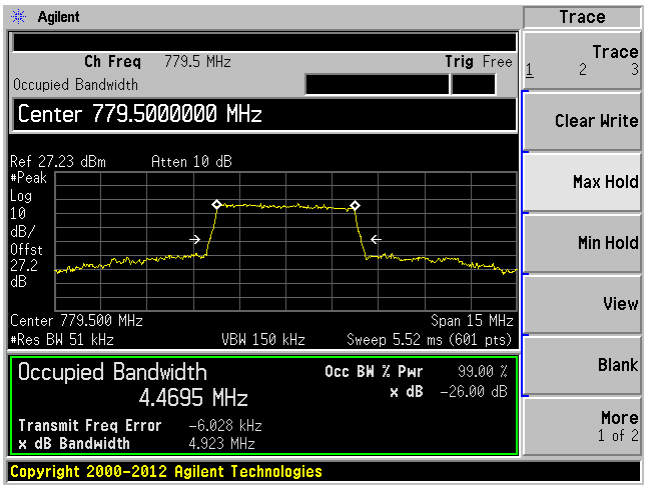


LTE Band 13, UL, 5 MHz, 16QAM

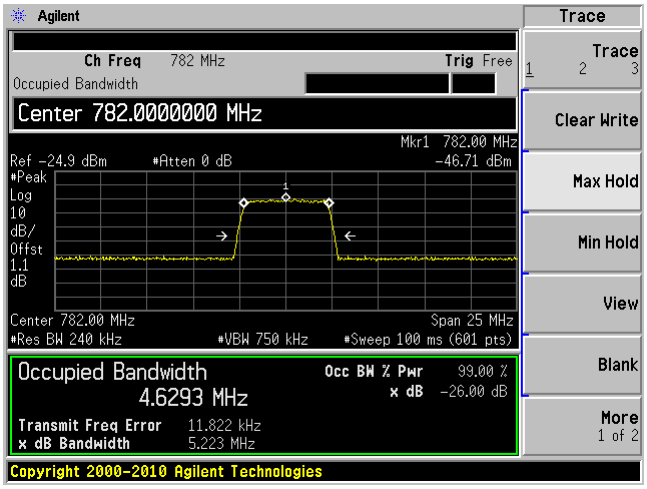
Low I/P



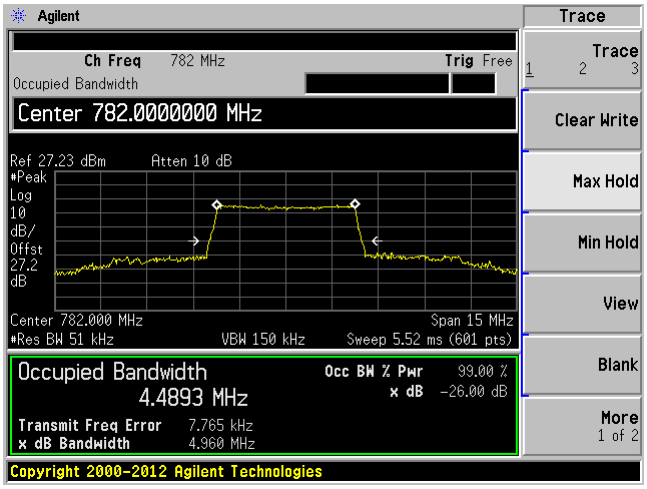
Low O/P



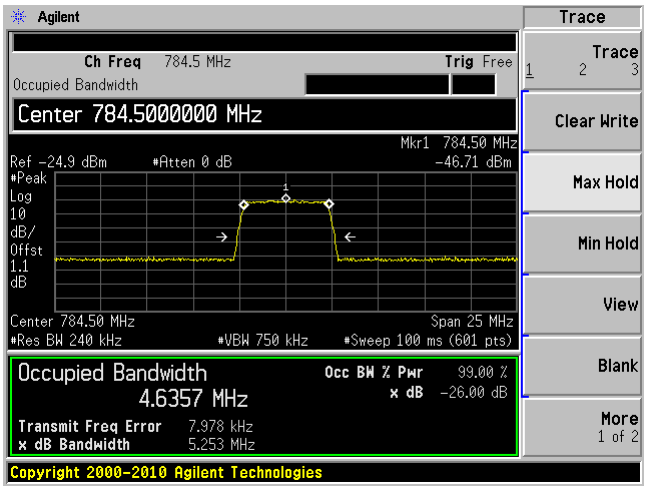
Middle I/P



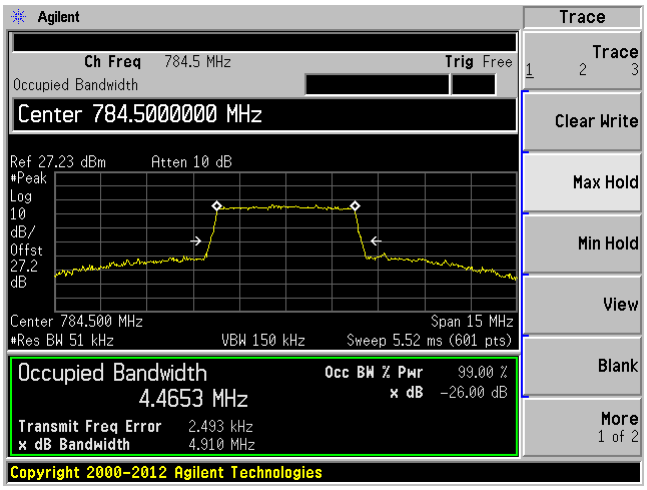
Middle O/P



High I/P

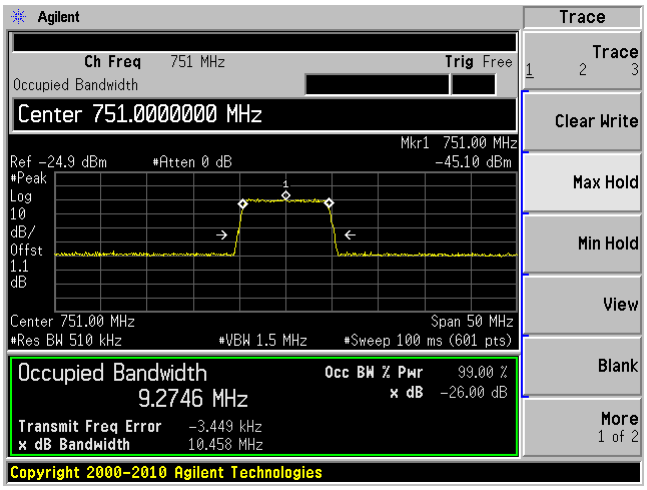


High O/P

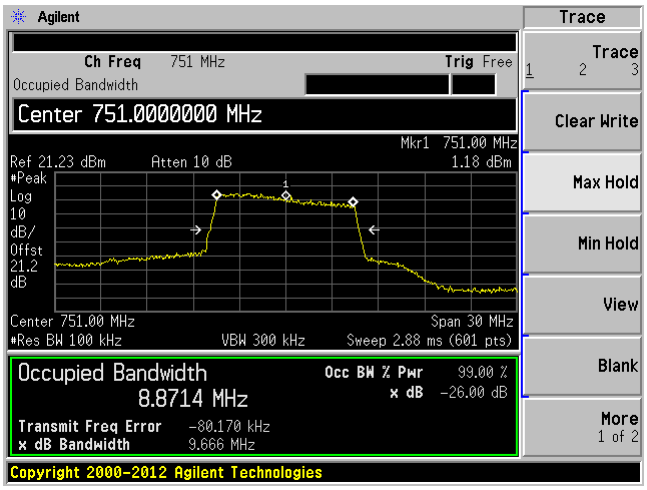


LTE Band 13, DL, 10 MHz, 16QAM

Middle I/P

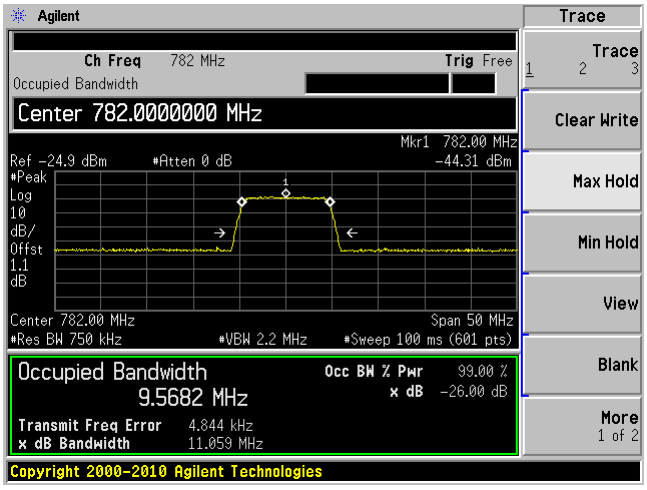


Middle O/P

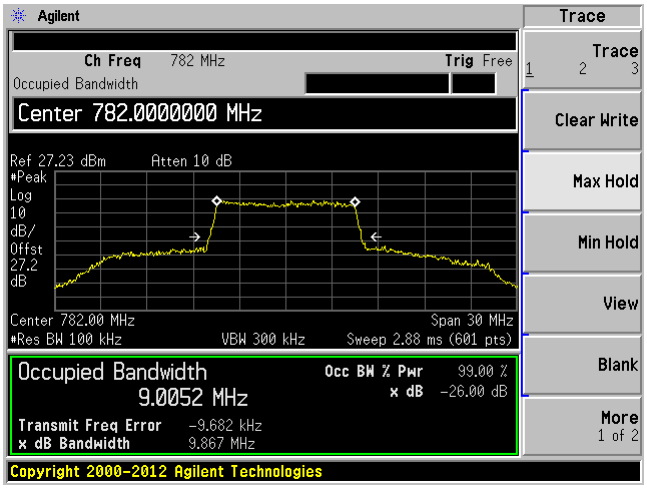


LTE Band 13, UL, 10 MHz, 16QAM

Middle I/P

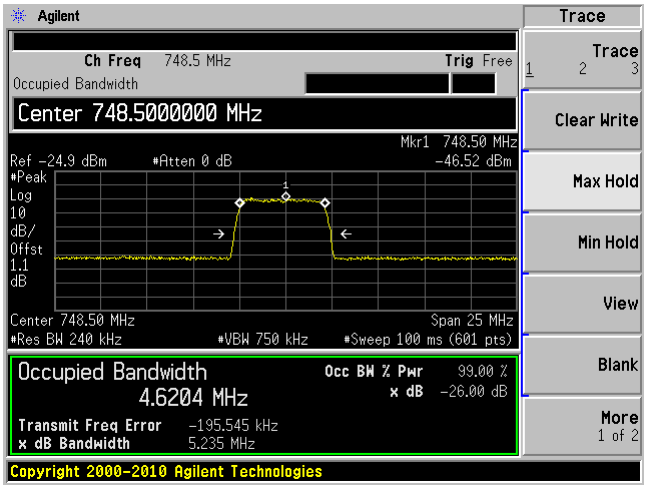


Middle O/P

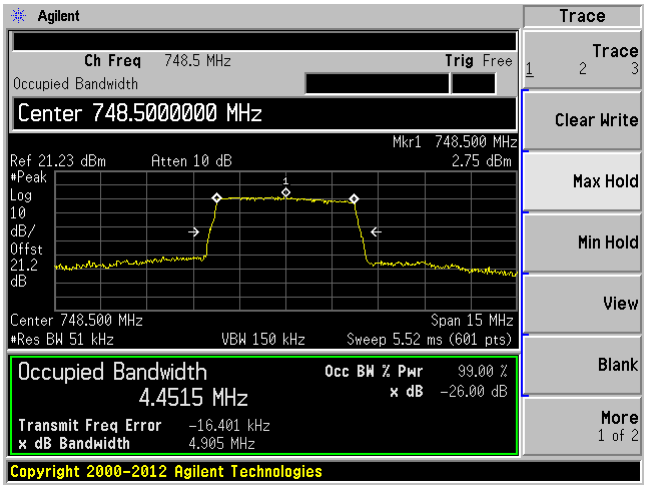


LTE Band 13, DL, 5 MHz, 64QAM

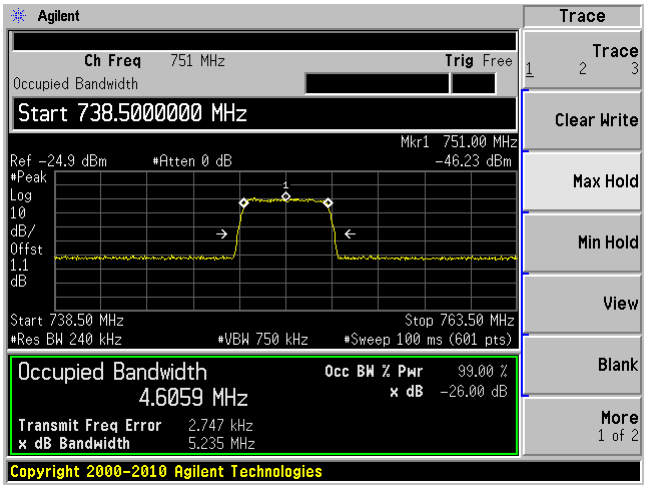
Low I/P



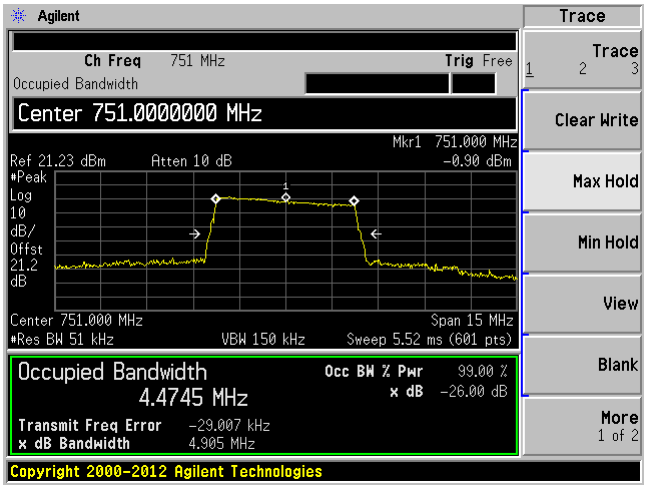
Low O/P



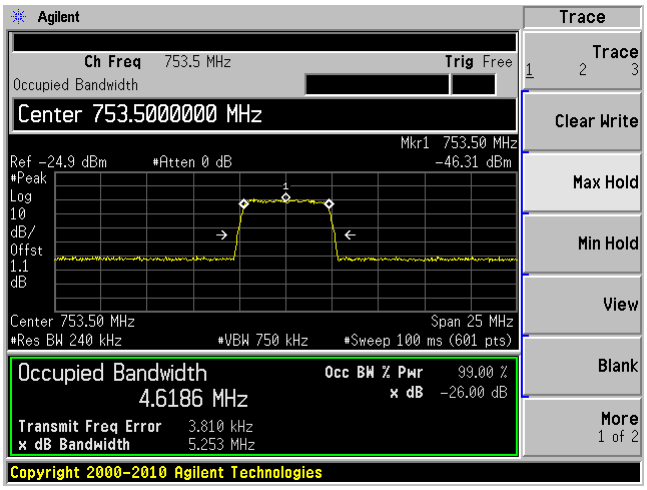
Middle I/P



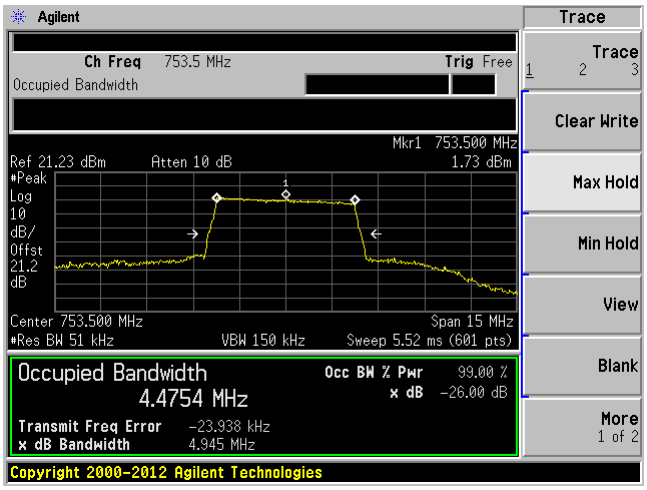
Middle O/P



High I/P

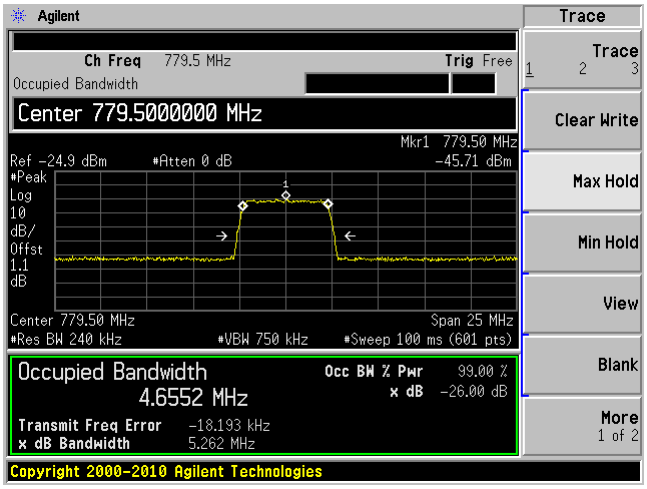


High O/P

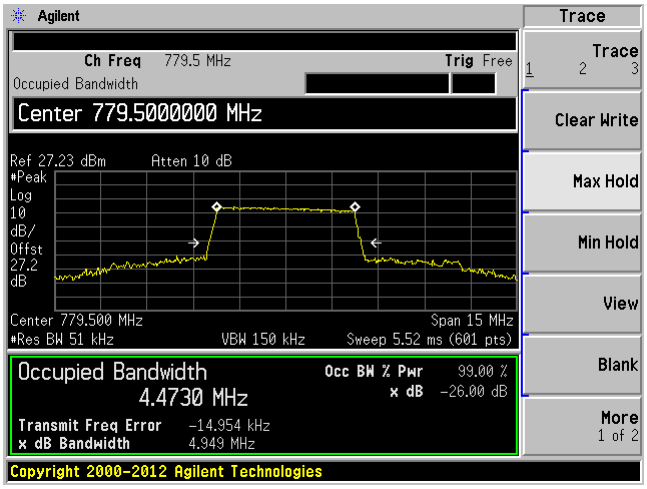


LTE Band 13, UL, 5 MHz, 64QAM

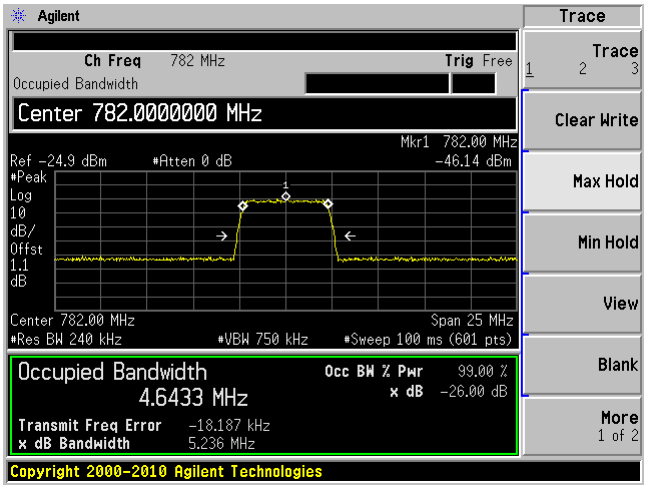
Low I/P



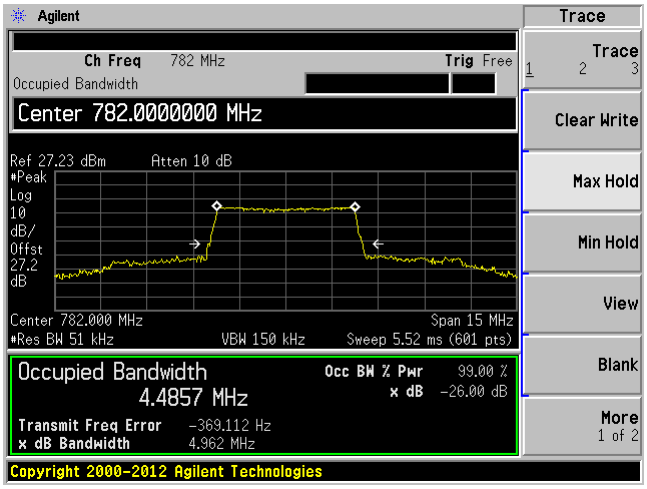
Low O/P



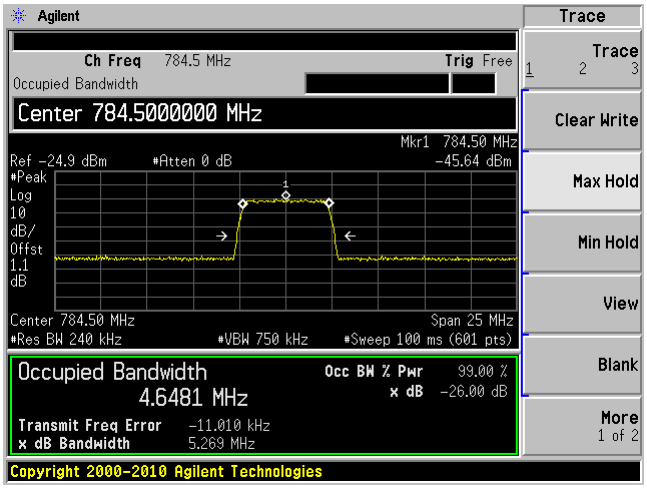
Middle I/P



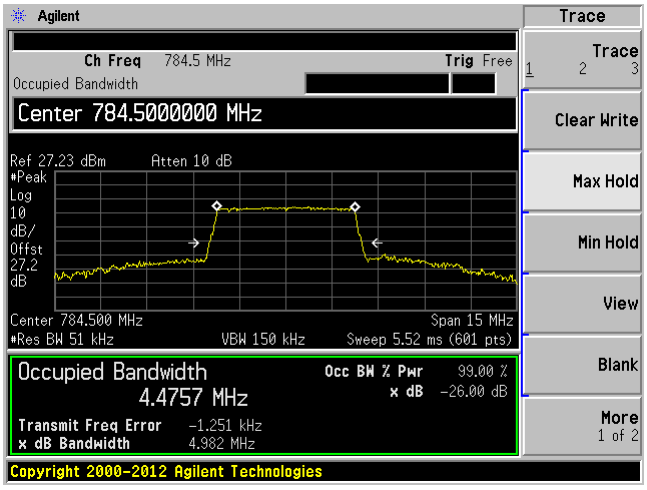
Middle O/P



High I/P

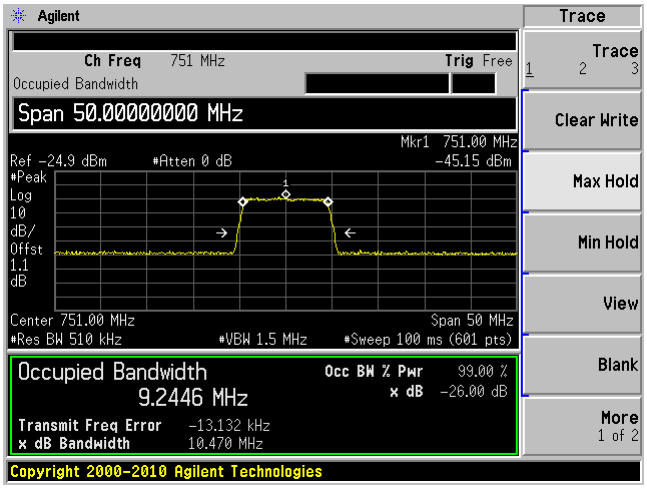


High O/P

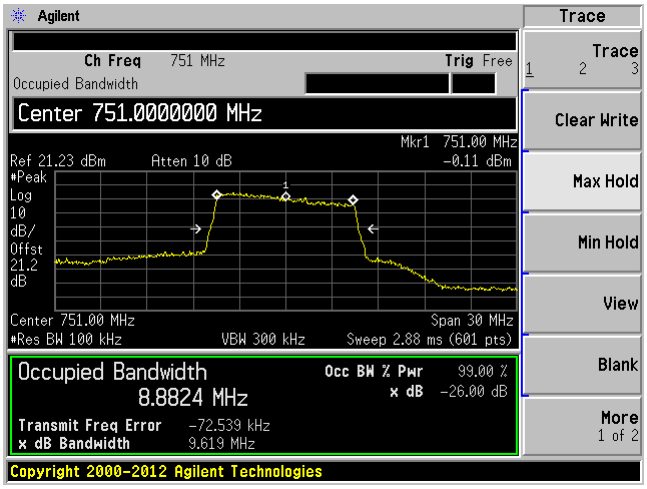


LTE Band 13, DL, 10 MHz, 64QAM

Middle I/P

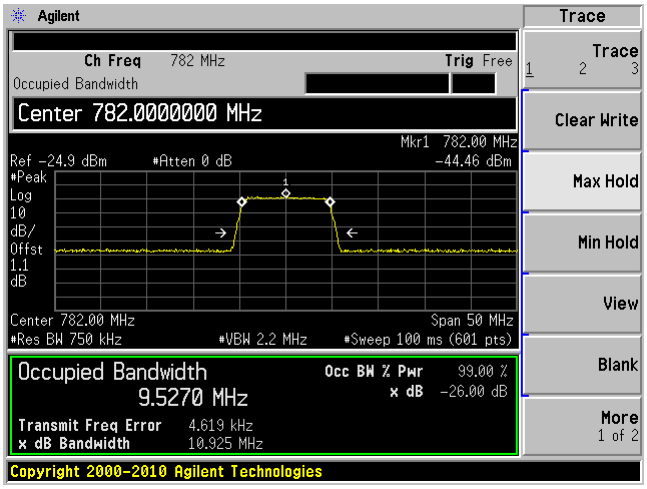


Middle O/P

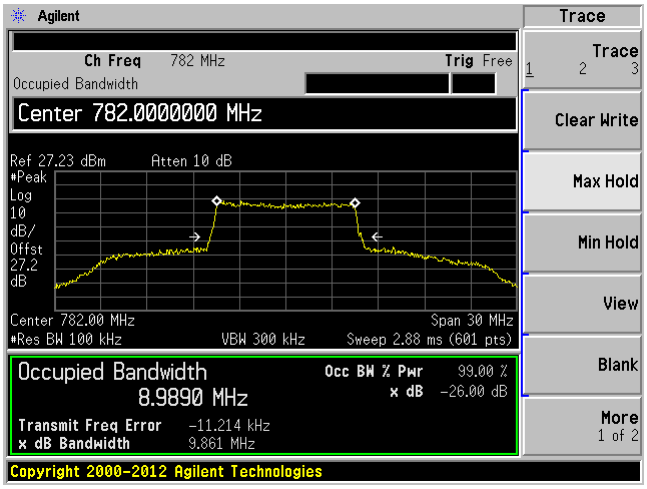


LTE Band 13, UL, 10 MHz, 64QAM

Middle I/P

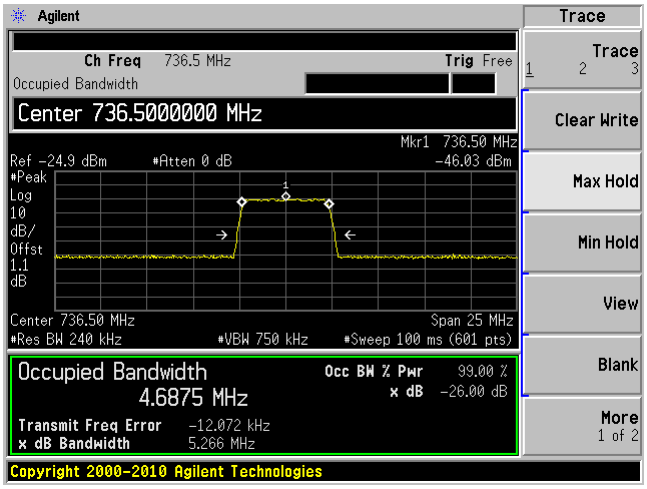


Middle O/P

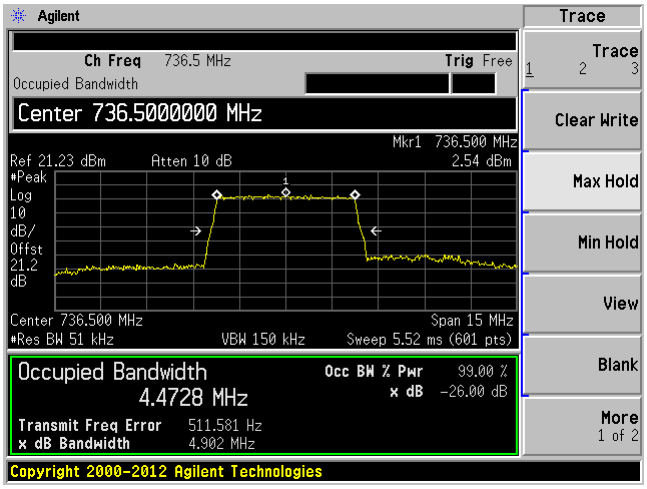


LTE Band 17, DL, 5 MHz, QPSK

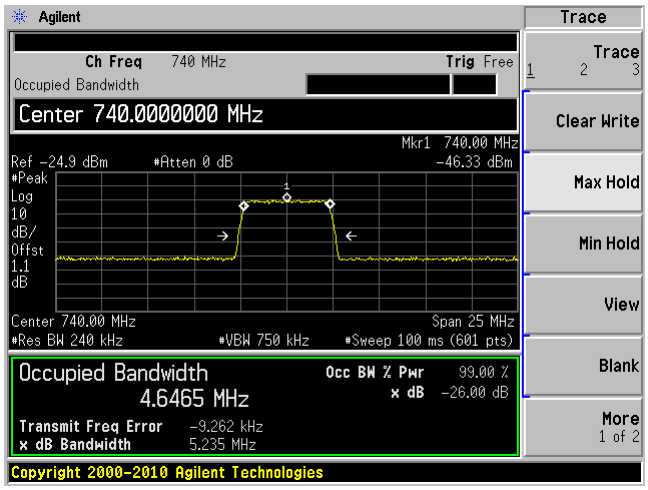
Low I/P



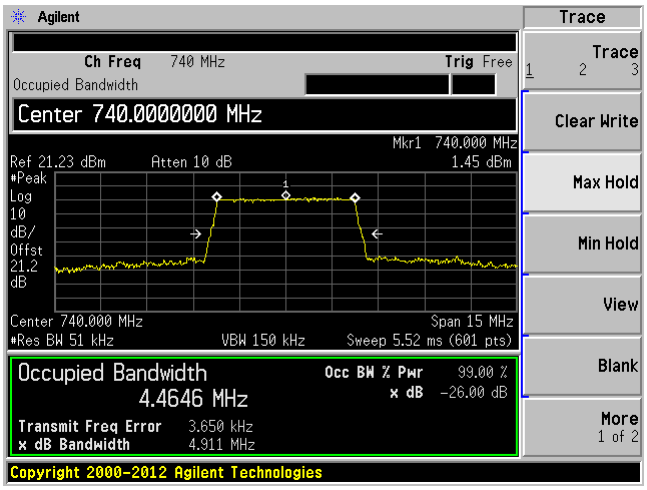
Low O/P



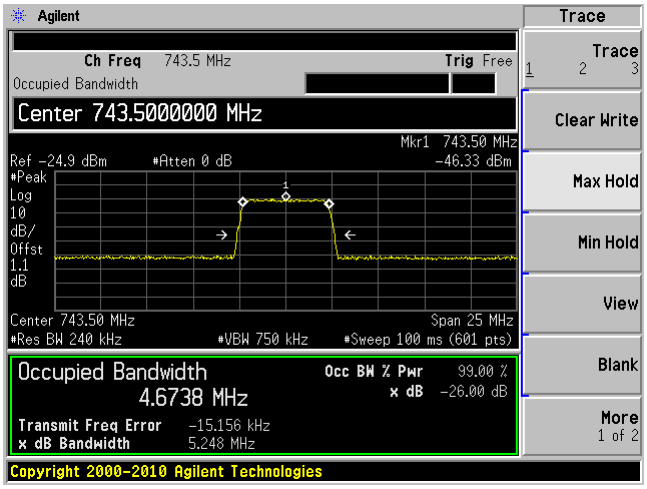
Middle I/P



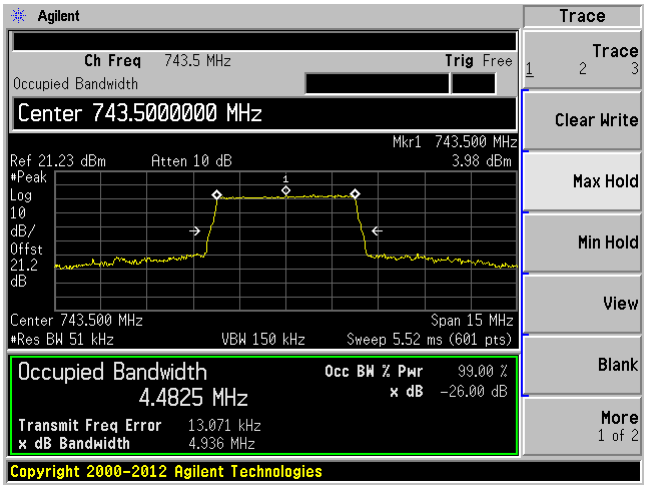
Middle O/P



High I/P

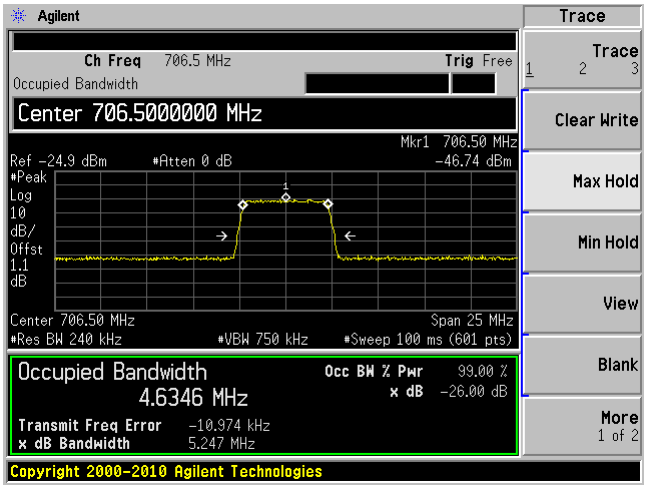


High O/P

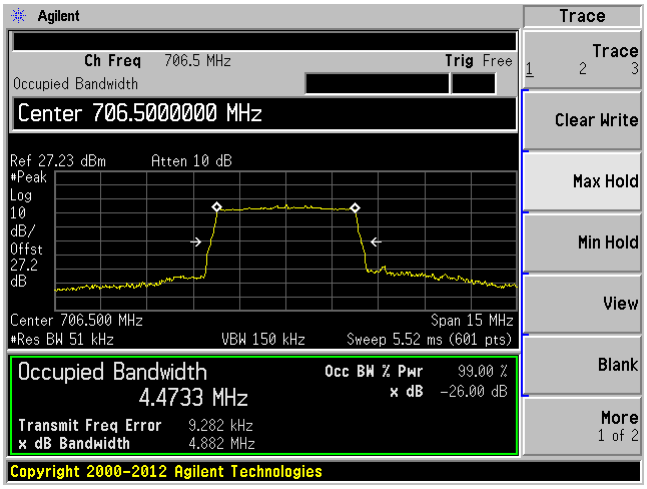


LTE Band 17, UL, 5 MHz, QPSK

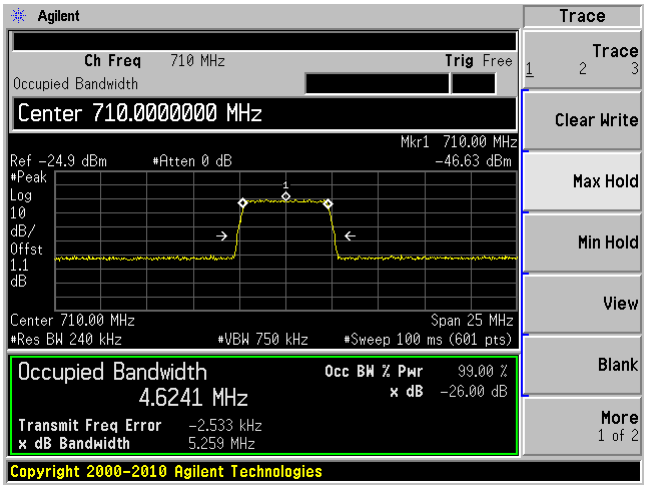
Low I/P



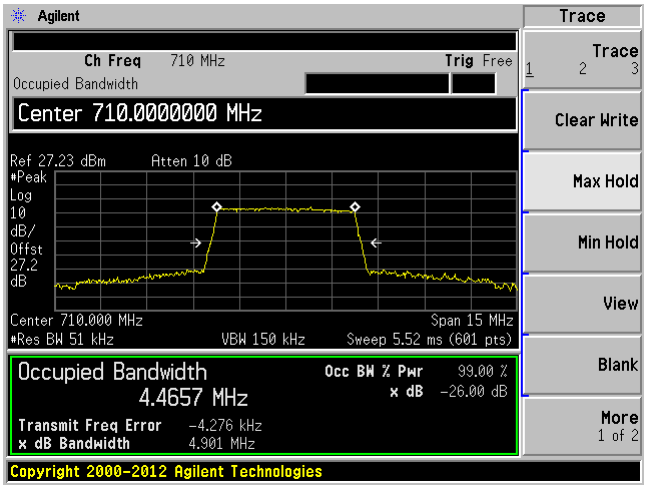
Low O/P



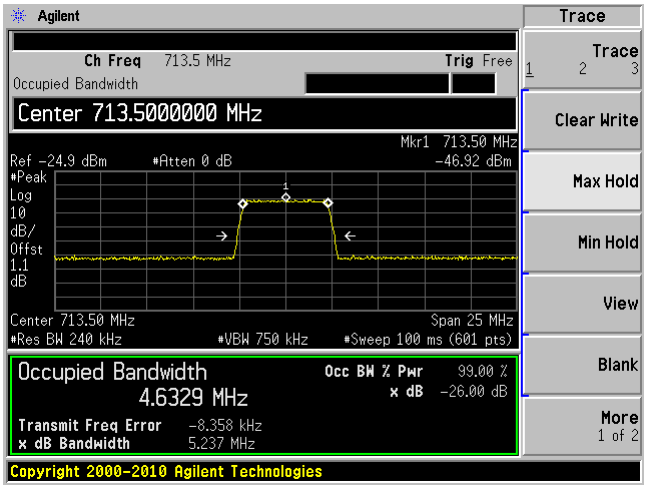
Middle I/P



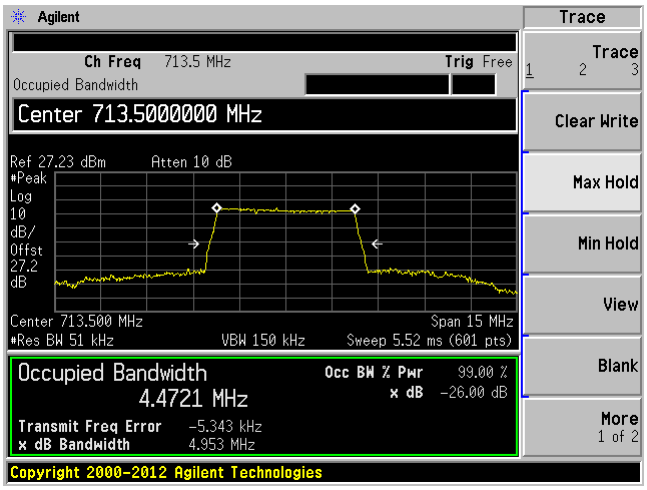
Middle O/P



High I/P

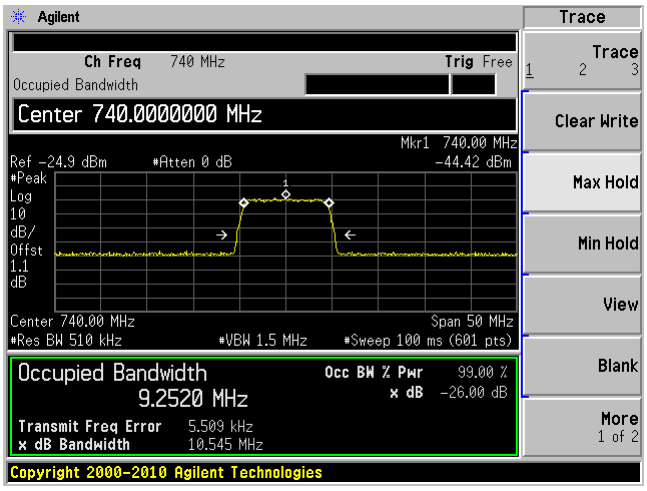


High O/P

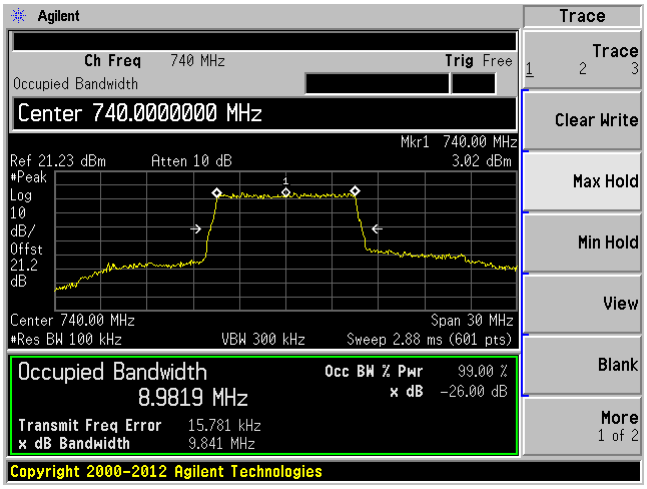


LTE Band 17, DL, 10 MHz, QPSK

Middle I/P

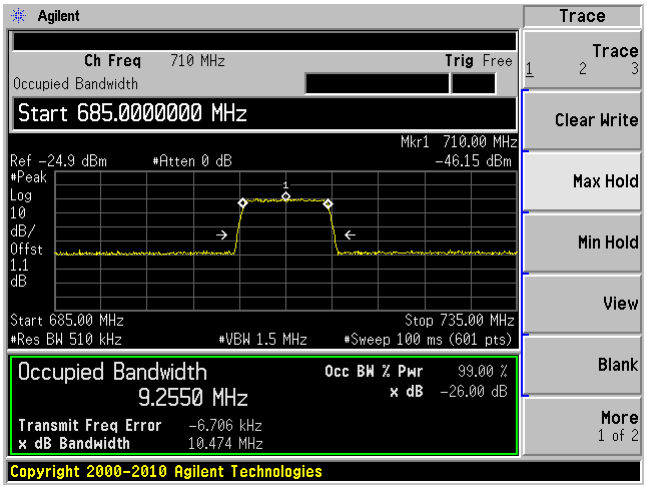


Middle O/P

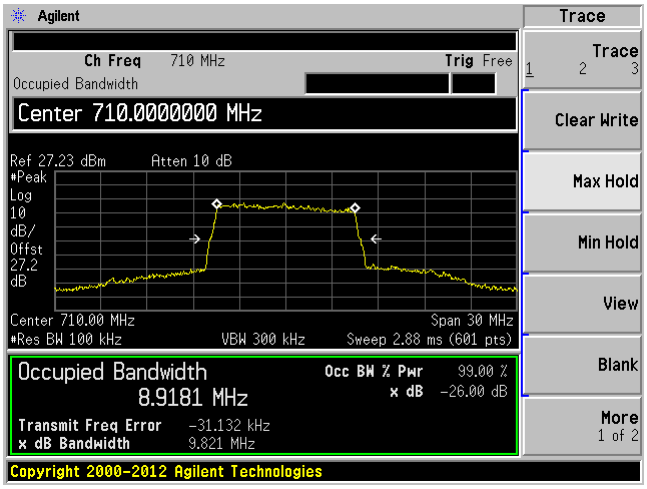


LTE Band 17, UL, 10 MHz, QPSK

Middle I/P

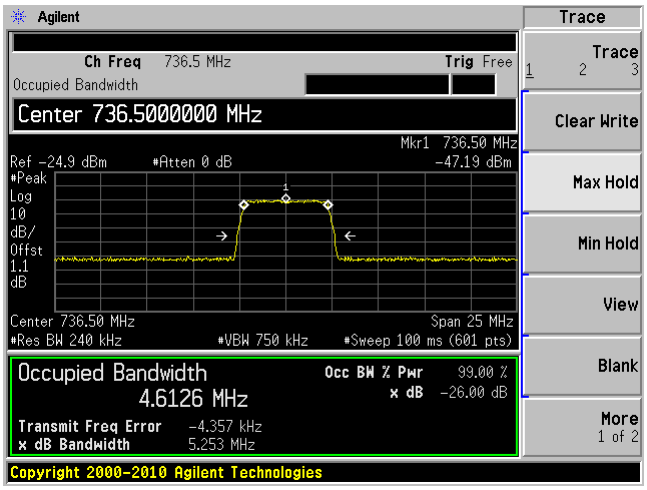


Middle O/P

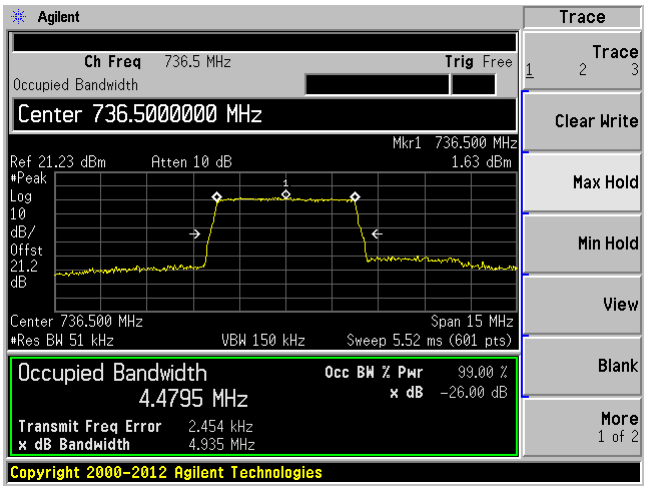


LTE Band 17, DL, 5 MHz, 16QAM

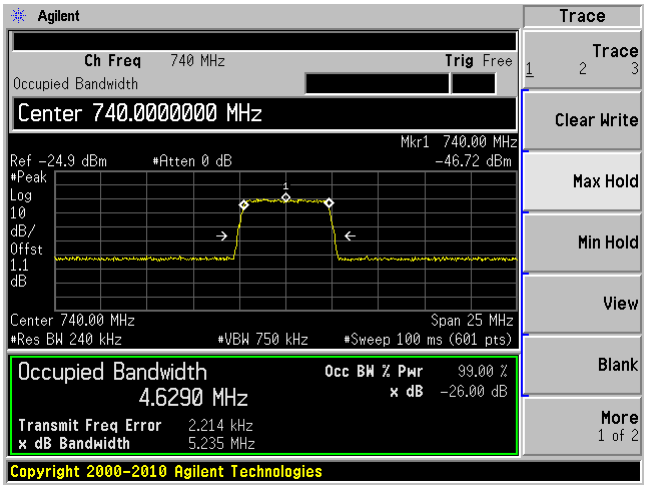
Low I/P



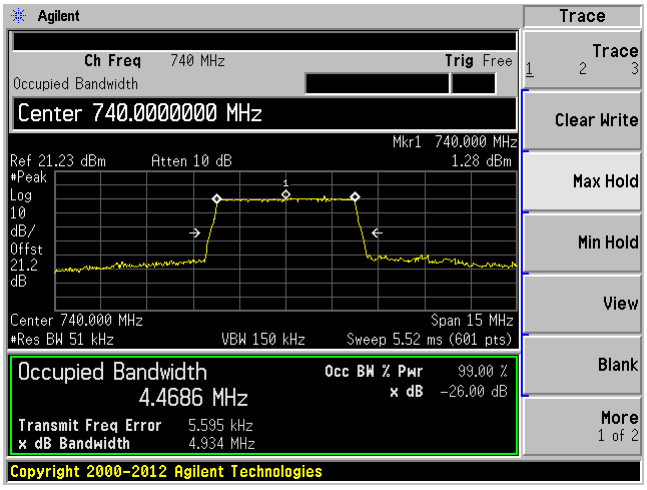
Low O/P



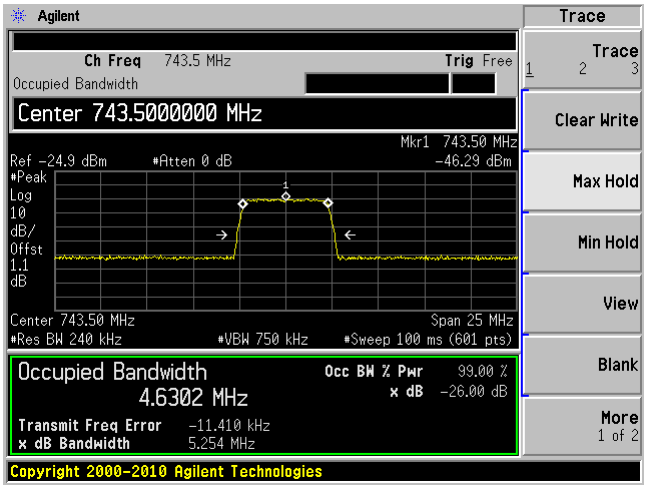
Middle I/P



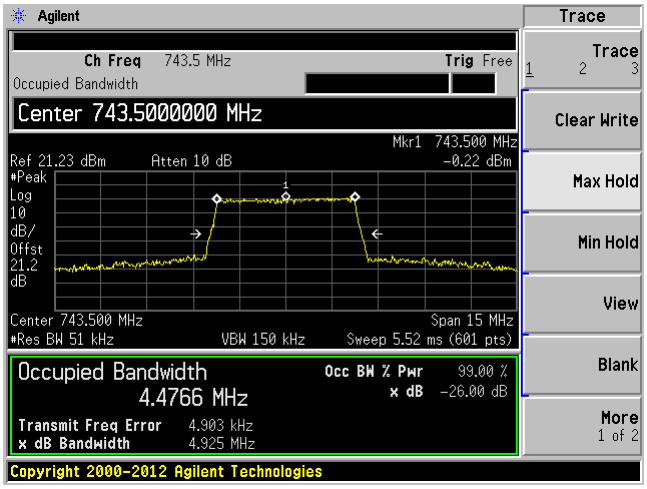
Middle O/P



High I/P

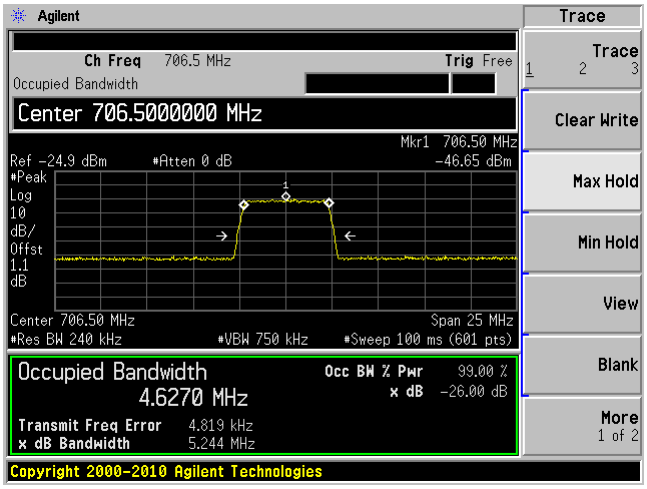


High O/P

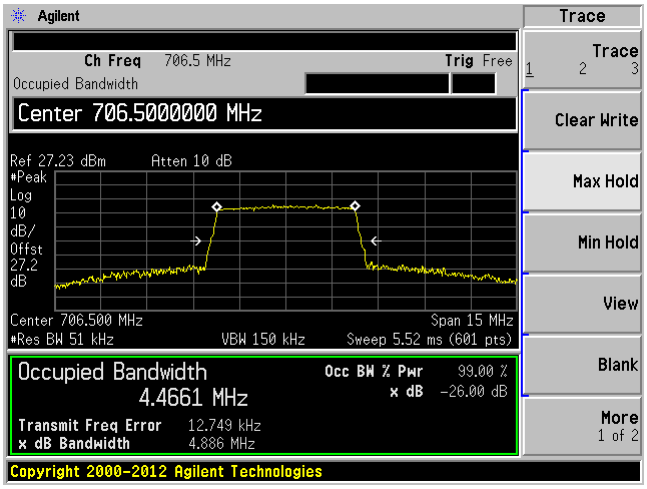


LTE Band 17, UL, 5 MHz, 16QAM

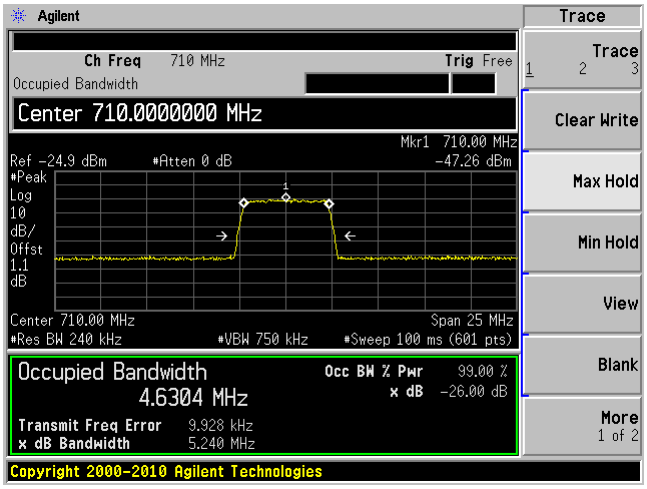
Low I/P



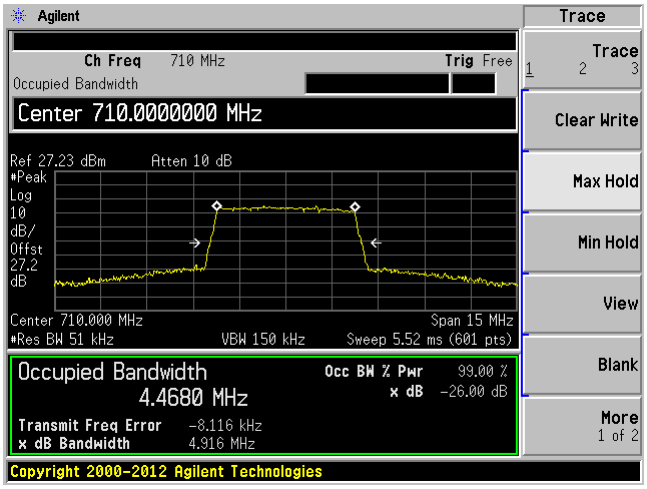
Low O/P



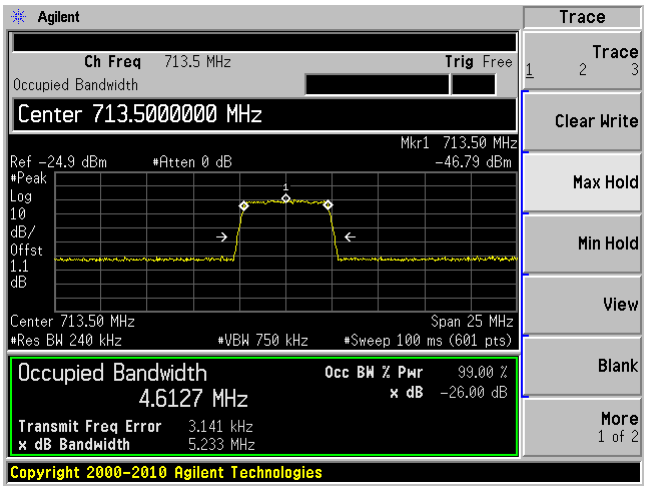
Middle I/P



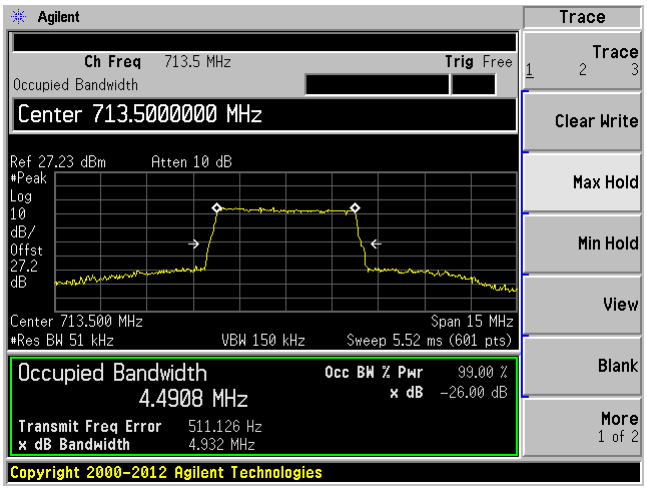
Middle O/P



High I/P

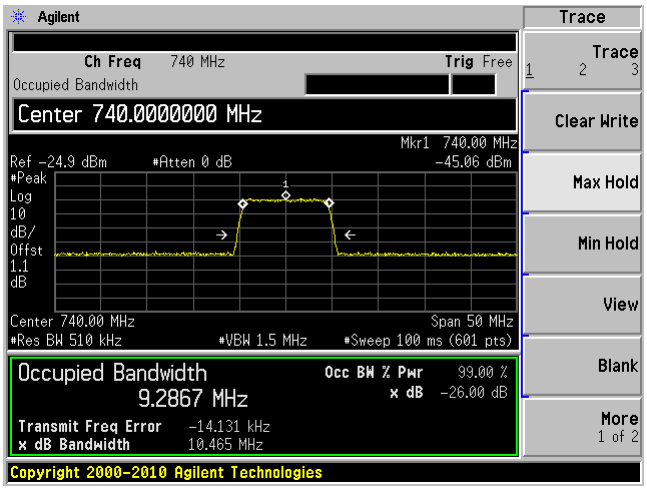


High O/P

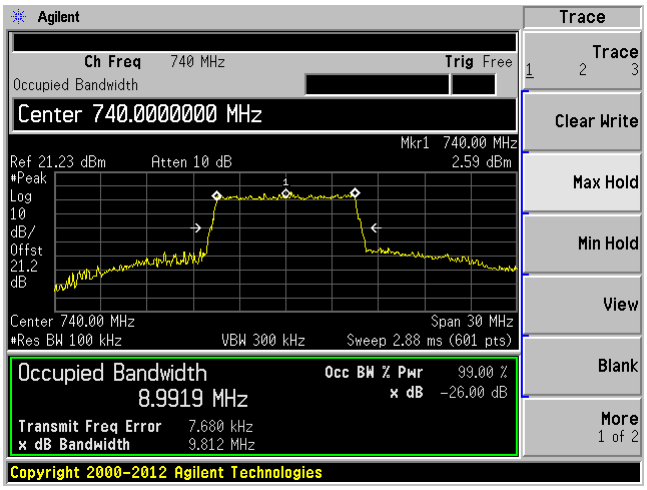


LTE Band 17, DL, 10 MHz, 16QAM

Middle I/P

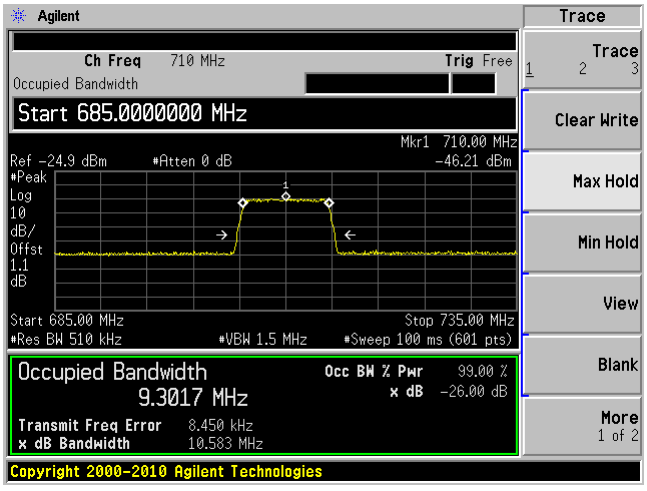


Middle O/P

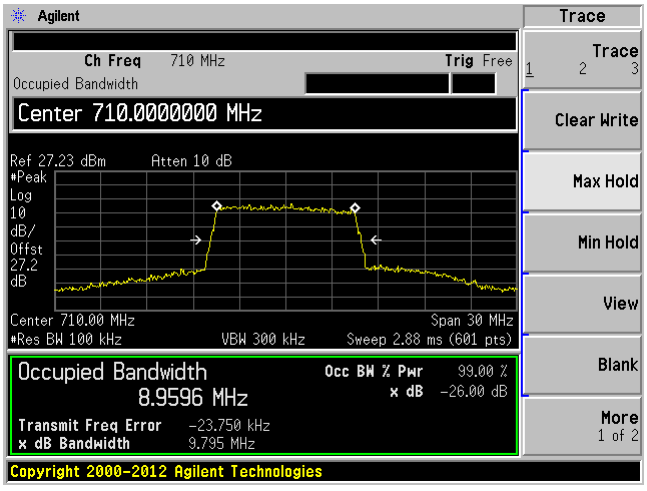


LTE Band 17, UL, 10 MHz, 16QAM

Middle I/P

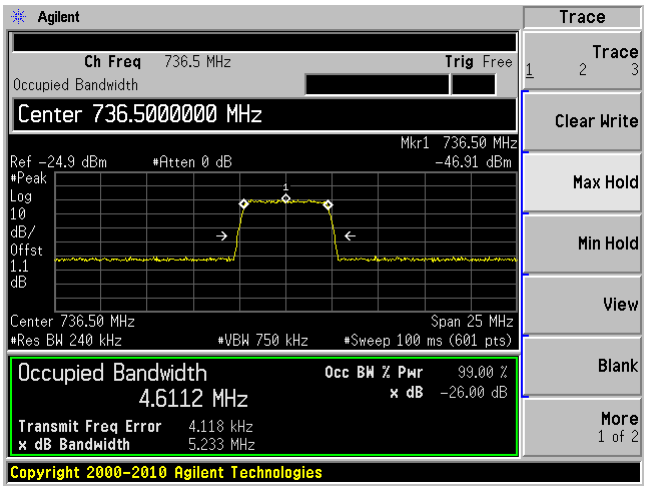


Middle O/P

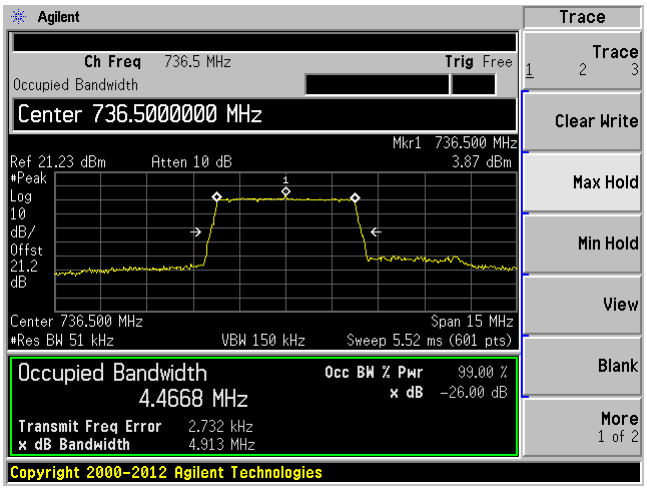


LTE Band 17, DL, 5 MHz, 64QAM

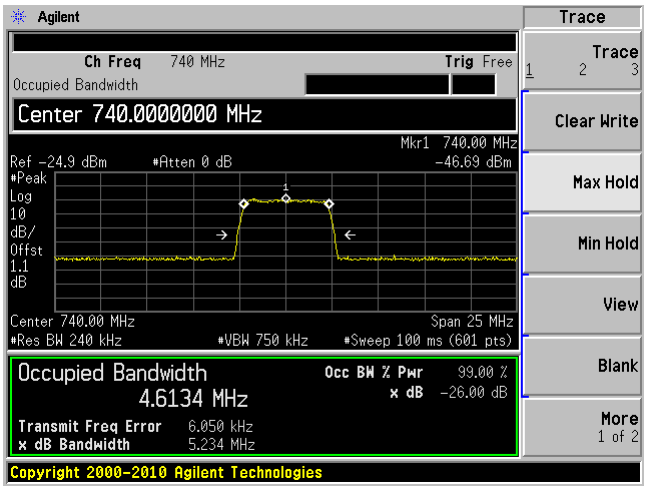
Low I/P



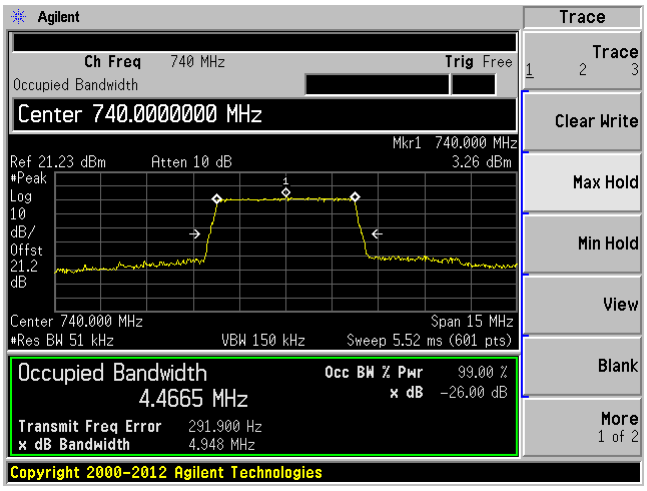
Low O/P



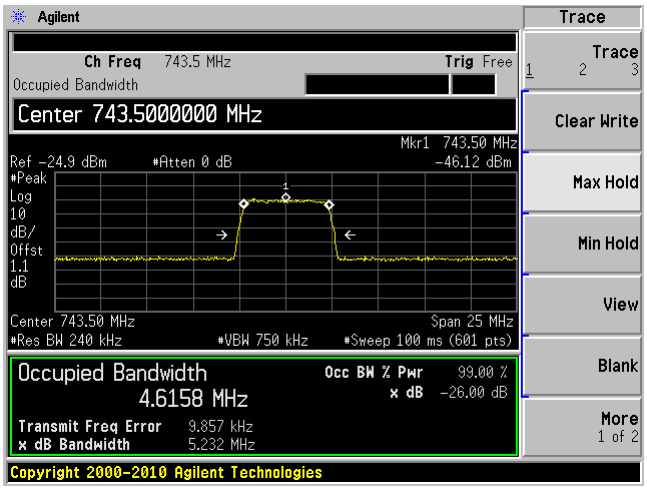
Middle I/P



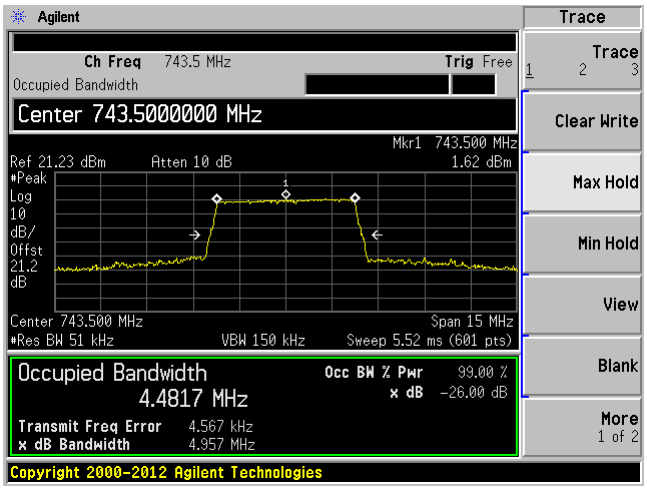
Middle O/P



High I/P

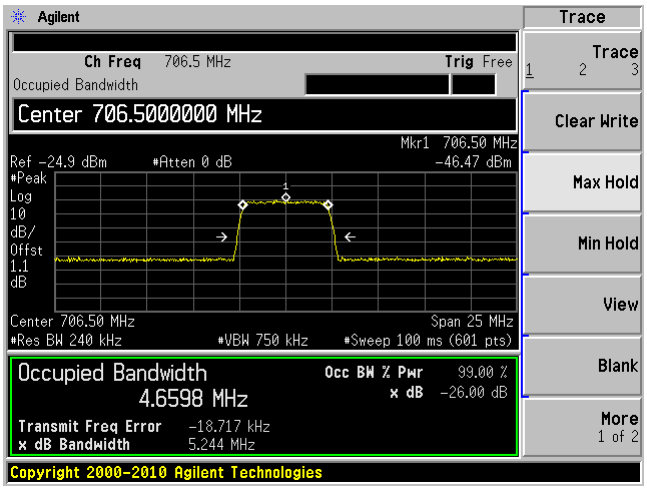


High O/P

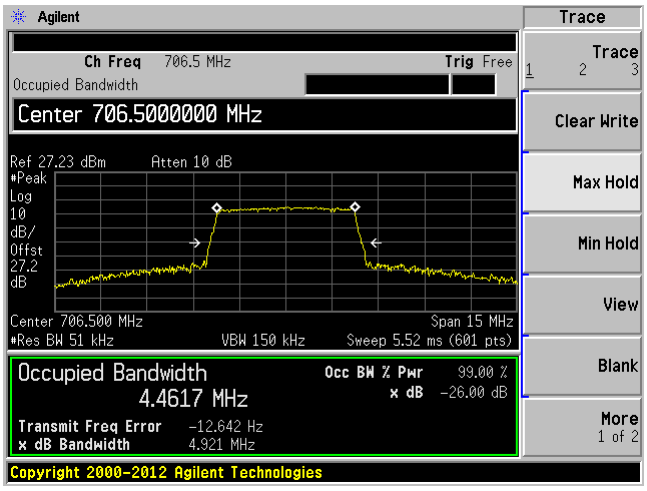


LTE Band 17, UL, 5 MHz, 64QAM

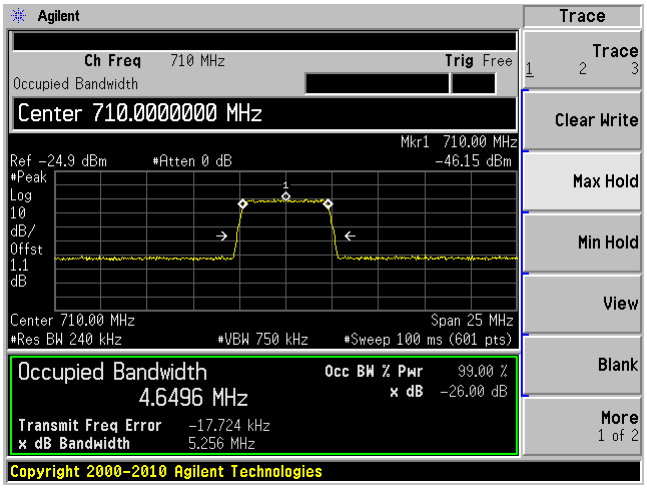
Low I/P



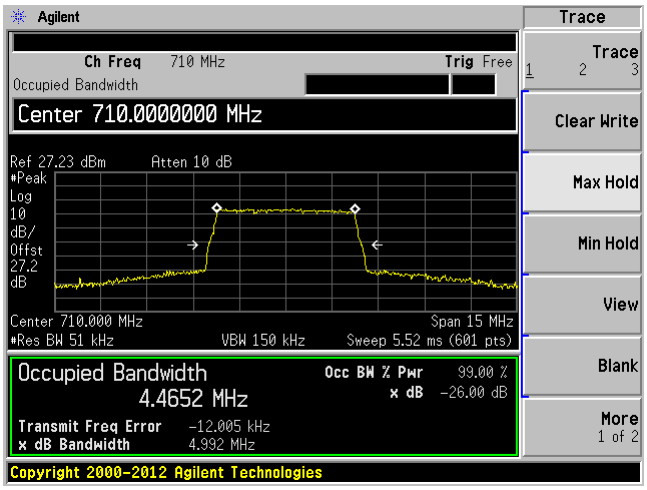
Low O/P



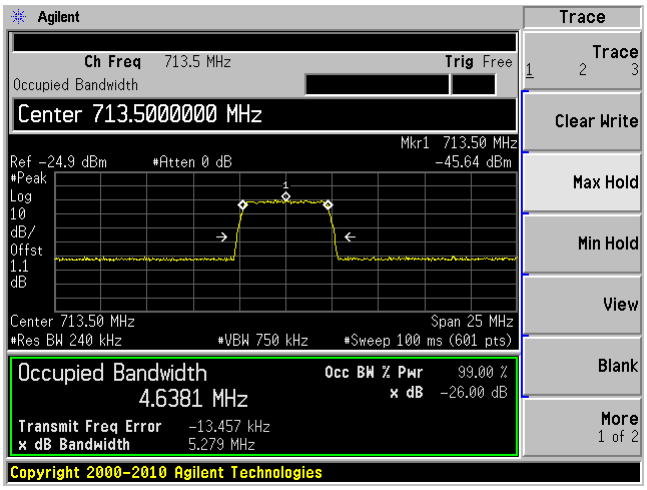
Middle I/P



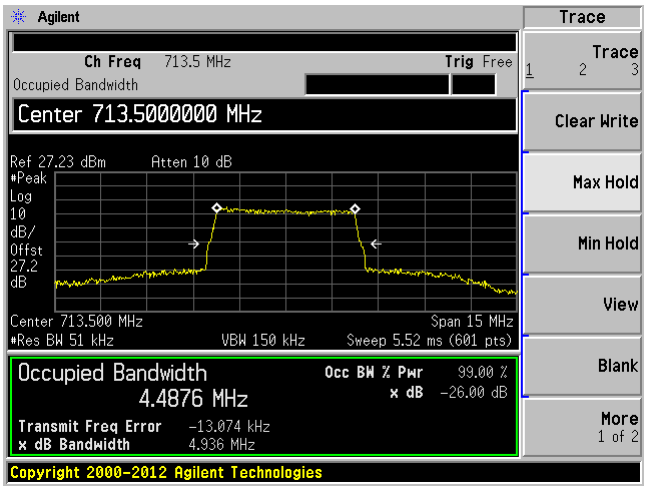
Middle O/P



High I/P

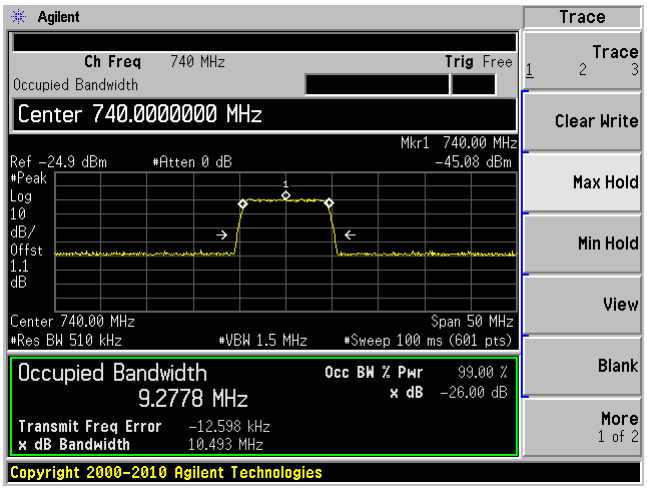


High O/P

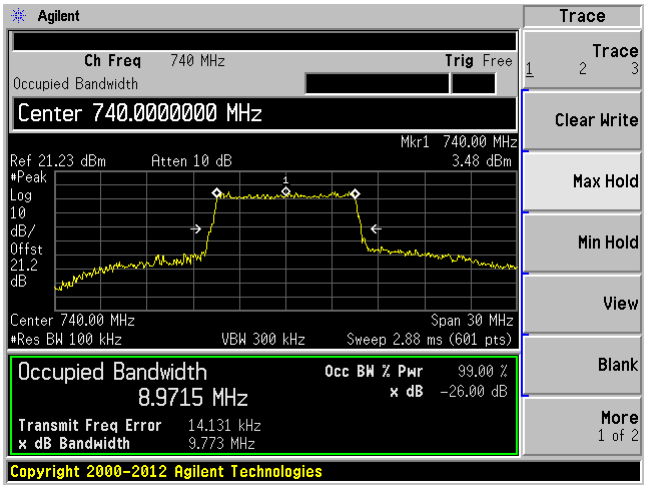


LTE Band 17, DL, 10 MHz, 64QAM

Low I/P

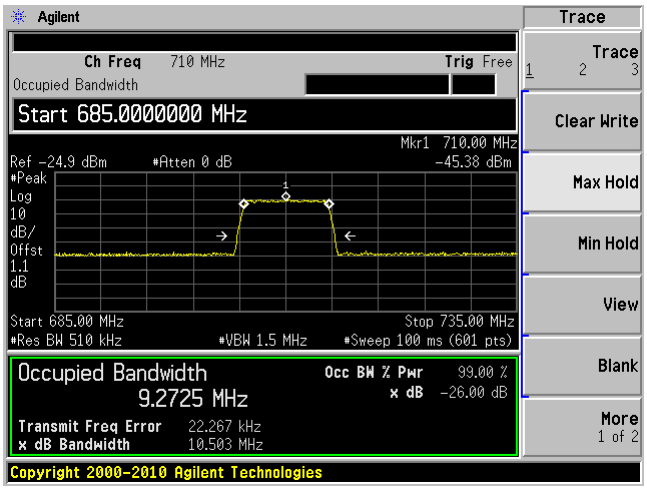


Low O/P



LTE Band 17, UL, 10 MHz, 64QAM

Middle I/P



Middle O/P