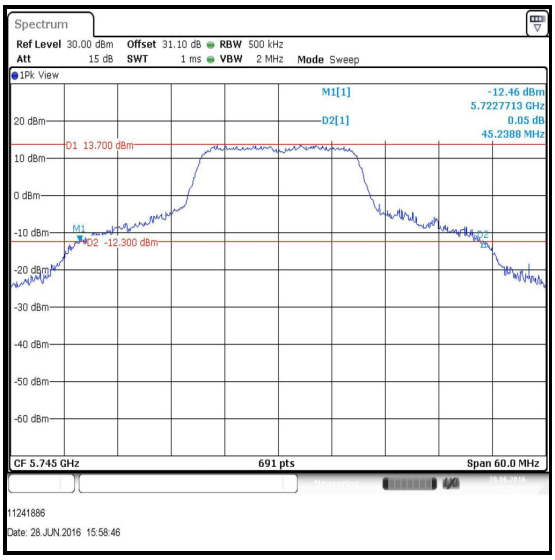
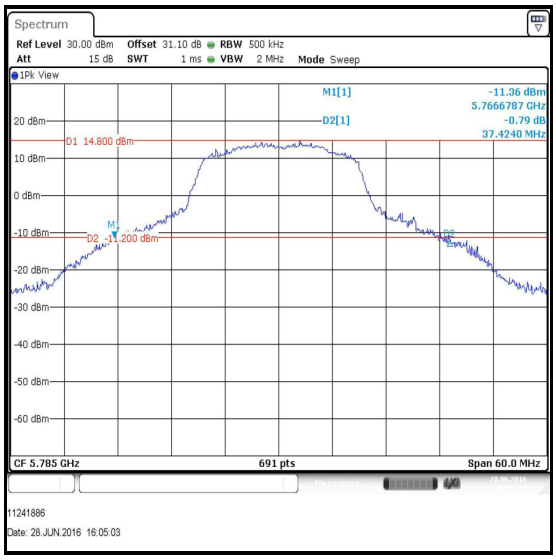
Transmitter 26 dB Emission Bandwidth (continued)

Results: 802.11n / 20 MHz / MIMO / 5.725-5.85 GHz band / Port 1

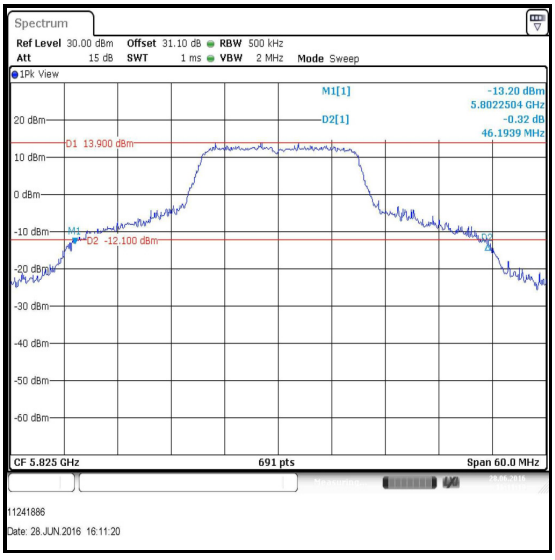
Channel	Frequency (MHz)	Modulation scheme	Data Rate Mbps / MCS	26 dB Emission Bandwidth (MHz)
Bottom	5745	BPSK	6.5 / 0	45.239
Middle	5785	BPSK	6.5 / 0	37.424
Top	5825	BPSK	6.5 / 0	46.194



Bottom Channel



Middle Channel

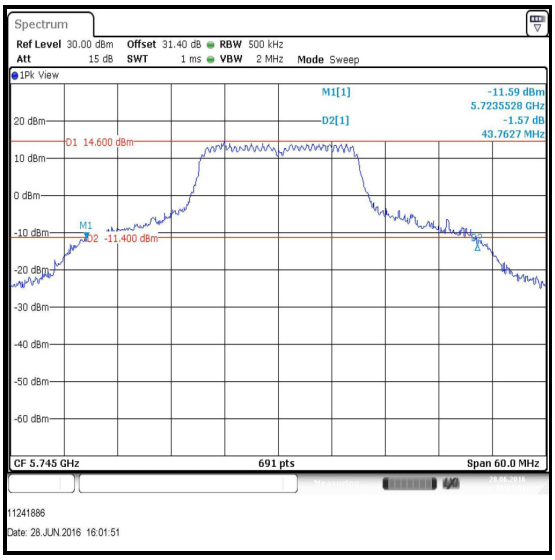


Top Channel

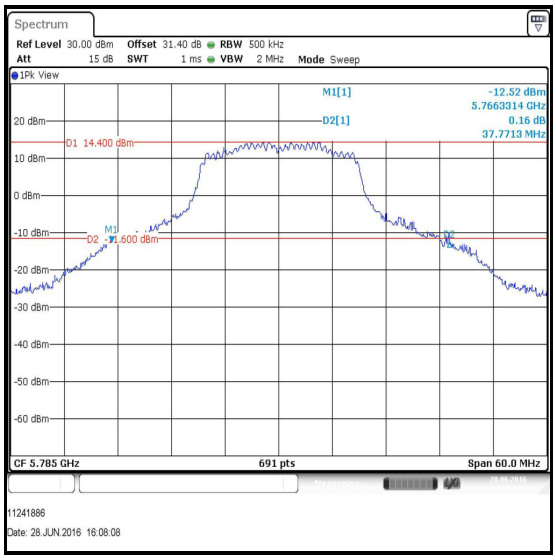
Transmitter 26 dB Emission Bandwidth (continued)

Results: 802.11n / 20 MHz / MIMO / 5.725-5.85 GHz band / Port 2

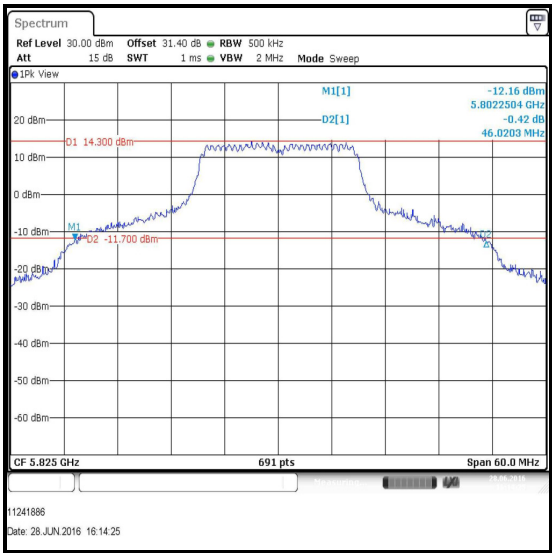
Channel	Frequency (MHz)	Modulation scheme	Data Rate Mbps / MCS	26 dB Emission Bandwidth (MHz)
Bottom	5745	BPSK	6.5 / 0	43.763
Middle	5785	BPSK	6.5 / 0	37.771
Top	5825	BPSK	6.5 / 0	46.020



Bottom Channel



Middle Channel

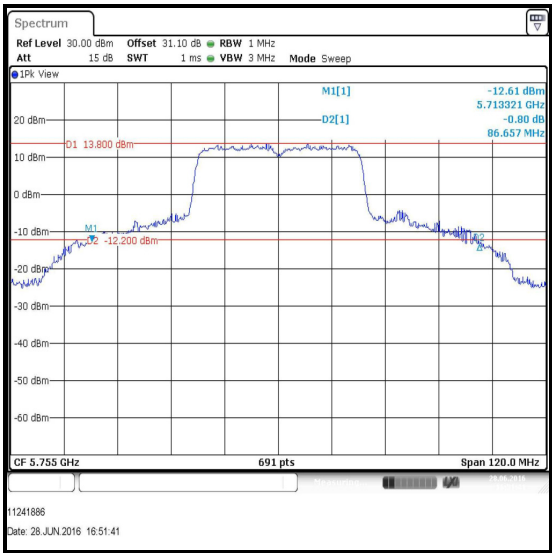


Top Channel

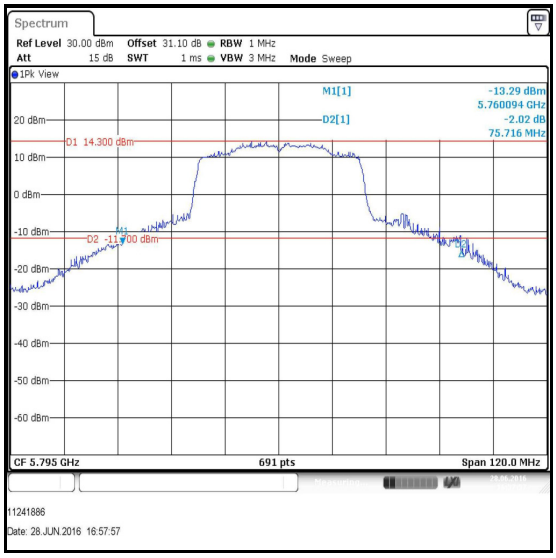
Transmitter 26 dB Emission Bandwidth (continued)

Results: 802.11n / 40 MHz / MIMO / 5.725-5.85 GHz band / Port 1

Channel	Frequency (MHz)	Modulation scheme	Data Rate Mbps / MCS	26 dB Emission Bandwidth (MHz)
Bottom	5755	BPSK	13.5 / 0	86.657
Top	5795	BPSK	13.5 / 0	75.716



Bottom Channel

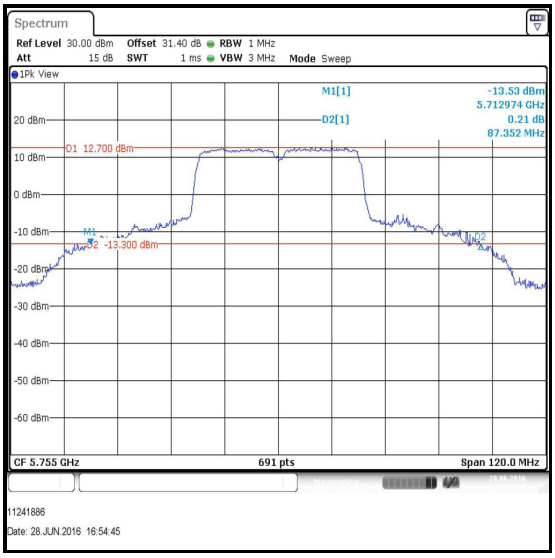


Top Channel

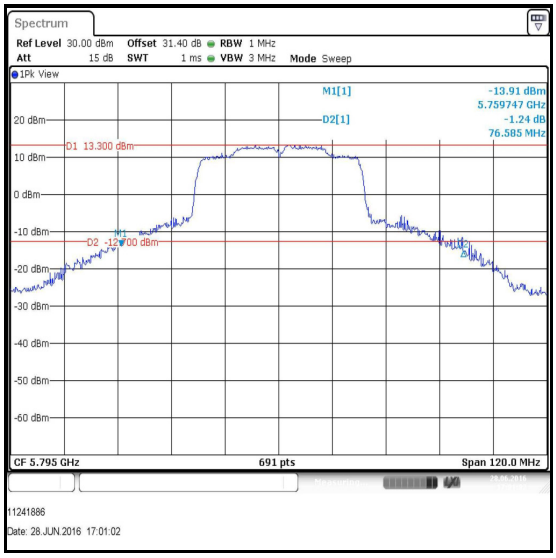
Transmitter 26 dB Emission Bandwidth (continued)

Results: 802.11n / 40 MHz / MIMO / 5.725-5.85 GHz band / Port 2

Channel	Frequency (MHz)	Modulation scheme	Data Rate Mbps / MCS	26 dB Emission Bandwidth (MHz)
Bottom	5755	BPSK	13.5 / 0	87.352
Top	5795	BPSK	13.5 / 0	76.585



Bottom Channel

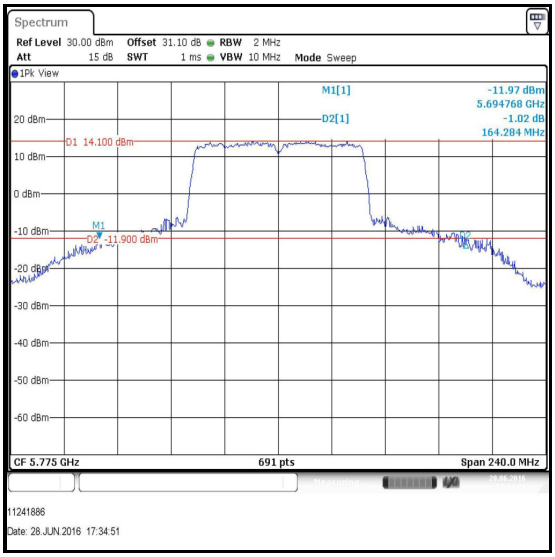


Top Channel

Transmitter 26 dB Emission Bandwidth (continued)

Results: 802.11ac / 80 MHz / MIMO / 5.725-5.85 GHz band / Port 1

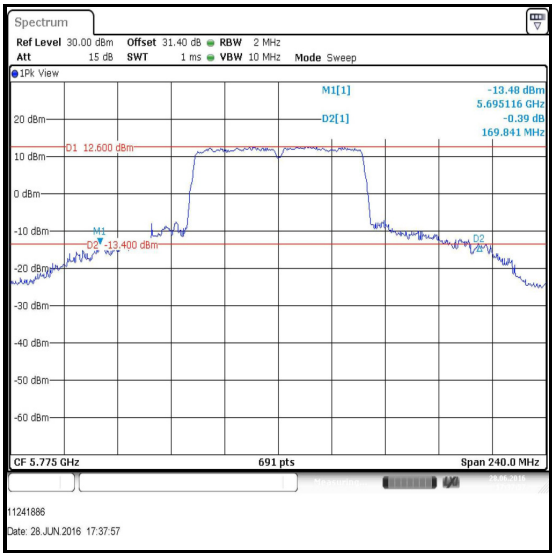
Channel	Frequency (MHz)	Modulation scheme	Data Rate Mbps / MCS	26 dB Emission Bandwidth (MHz)
Single	5775	BPSK	29.3 / 0x1	164.284



Single Channel

Results: 802.11ac / 80 MHz / MIMO / 5.725-5.85 GHz band / Port 2

Channel	Frequency (MHz)	Modulation scheme	Data Rate Mbps / MCS	26 dB Emission Bandwidth (MHz)
Single	5775	BPSK	29.3 / 0x1	169.841



Single Channel

Transmitter 26 dB Emission Bandwidth (continued)

Test Equipment Used:

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1659	Thermohygrometer	JM Handelspunkt	30.5015.13	None stated	02 Apr 2017	12
M1835	Signal Analyser	Rohde & Schwarz	FSV30	103050	27 Feb 2017	12
M1867	Attenuator	Huber + Suhner AG	6820.17.B	07101	Calibrated before use	-
A2847	Attenuator	Radiall	R411.820.121	24671450	Calibrated before use	-
A2345	Attenuator	Macom	2082-6043-20	None stated	Calibrated before use	-
A2952	RF Switch	Pickering Interfaces	64-102-002 & 40-881-001	XZ361012 & X361507	Calibrated before use	-
S0538	DC Power Supply	TTi	PL154	250135	Calibrated before use	-
M1818	Multimeter	Fluke	79III	71811580	27 Apr 2017	12
M1252	Signal Generator	Hewlett Packard	83640A	3119A00489	26 Oct 2017	24

5.2.2. Transmitter Minimum 6 dB Bandwidth

Test Summary:

Test Engineer:	Georgios Vrezas	**Test Dates:**	28 June 2016 & 29 June 2016
Test Sample IMEI:	358640070098109		

FCC Reference:	Part 15.407(e)
Test Method Used:	KDB 789033 D02 Section II.C.2.

Environmental Conditions:

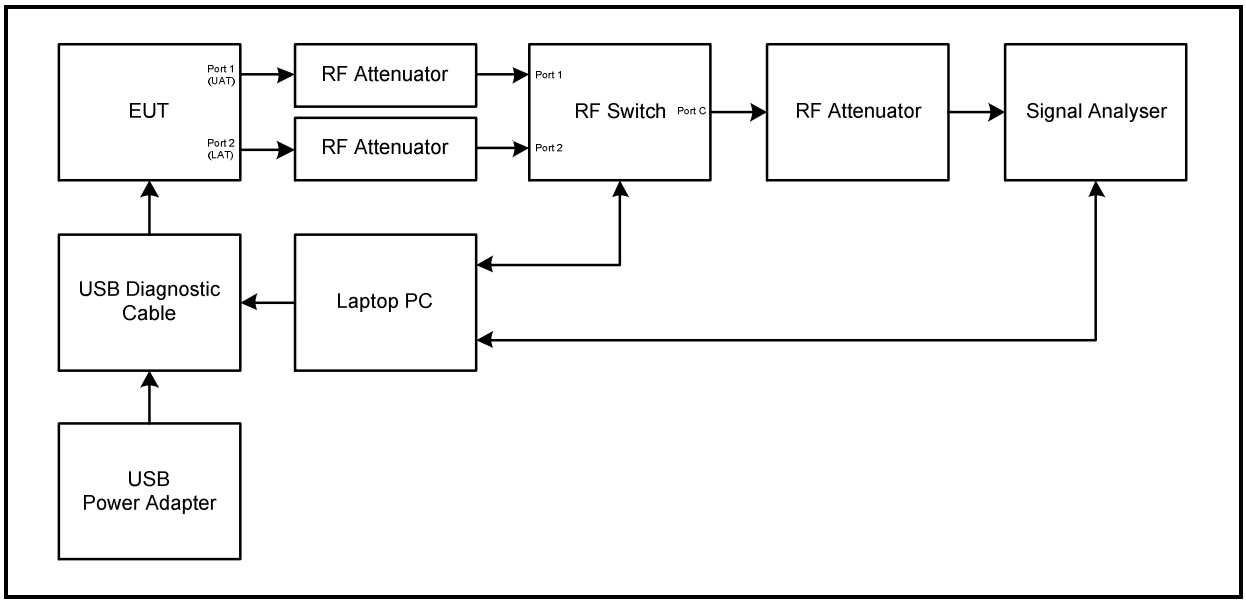
Temperature (°C):	23 to 24
Relative Humidity (%):	40 to 45

Note(s):

1. The customer declared the following data rates to be used for all measurements as:
    - 802.11a – BPSK / 6 Mbps / Port 1
    - 802.11n HT20 SISO – BPSK / 6.5 Mbps / MCS0 / Port 1
    - 802.11n HT40 SISO – BPSK / 13.5 Mbps / MCS0 / Port 1
    - 802.11ac VHT80 SISO – BPSK / 29.3 Mbps / MCS0 / Port 1
    - 802.11n HT20 MIMO – BPSK / 6.5 Mbps / MCS0
    - 802.11n HT40 MIMO – BPSK / 13.5 Mbps / MCS0
    - 802.11ac VHT80 MIMO – BPSK / 29.3 Mbps / MCS0x1
2. Final measurements were performed using the above configurations on the relevant channels.
3. For channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz, measurements were made on the portion of the emission bandwidth that is contained within the U-NII-3 band.
4. The signal analyser was connected to the RF port on the EUT using an RF switch, suitable attenuation and RF cables. An RF level offset was entered on the signal analyser to compensate for the loss of the switch, attenuators and RF cables.

Transmitter Minimum 6 dB Bandwidth (continued)

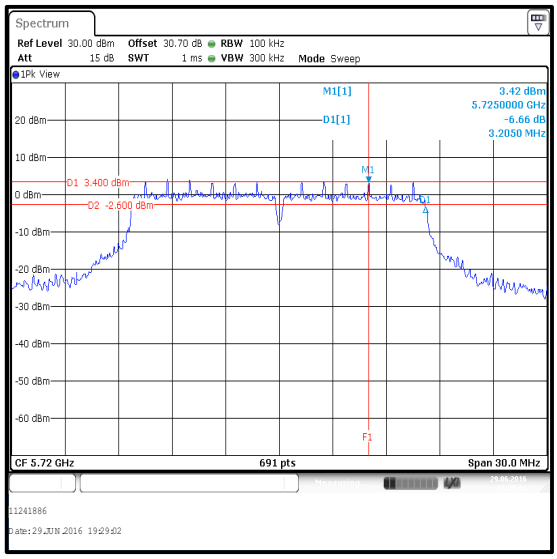
Test setup:



Transmitter Minimum 6 dB Bandwidth (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11a / 20 MHz / BPSK / 6 Mbps

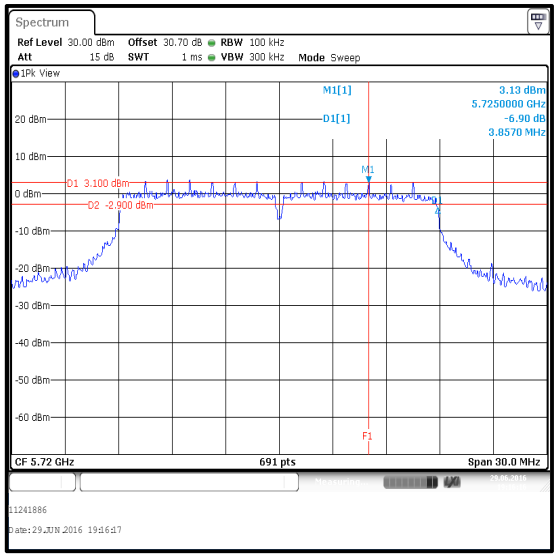
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3205	≥500	2705	Complied



Single Channel

Results: 802.11n / 20 MHz / SISO / BPSK / MCS0

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3857	≥500	3357	Complied

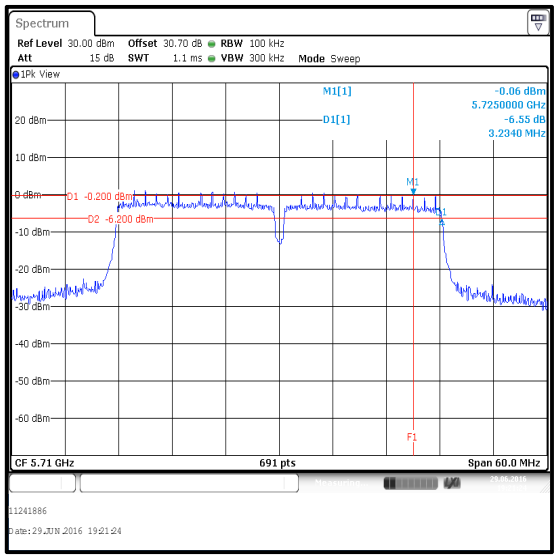


Single Channel

Transmitter Minimum 6 dB Bandwidth (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11n / 40 MHz / SISO / BPSK / MCS0

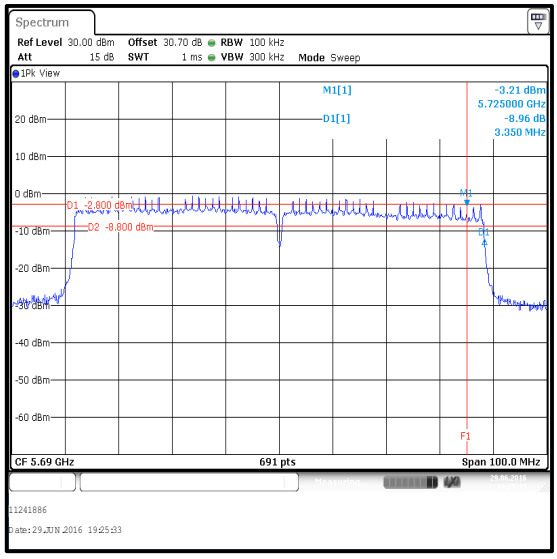
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3234	≥500	2734	Complied



Single Channel

Results: 802.11n / 80 MHz / SISO / BPSK / MCS0

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3350	≥500	2850	Complied

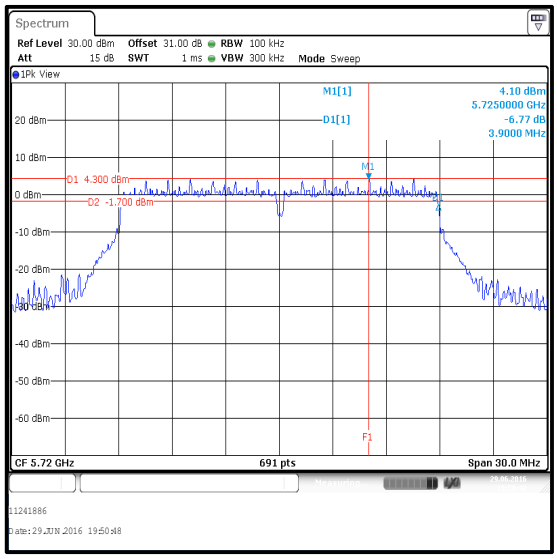


Single Channel

Transmitter Minimum 6 dB Bandwidth (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11n / 20 MHz / MIMO / BPSK / MCS0 / Port 1

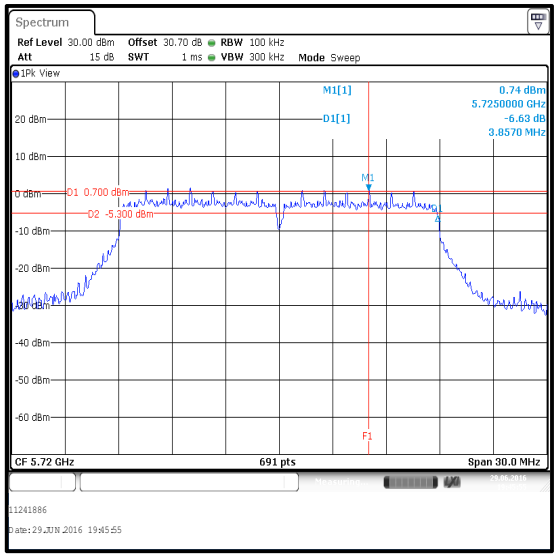
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3900	≥500	3400	Complied



Single Channel

Results: 802.11n / 20 MHz / MIMO / BPSK / MCS0 / Port 2

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3857	≥500	3357	Complied

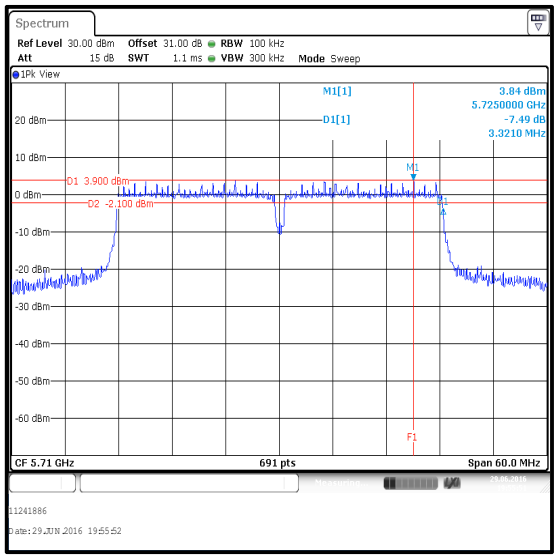


Single Channel

Transmitter Minimum 6 dB Bandwidth (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11n / 40 MHz / MIMO / BPSK / MCS0 / Port 1

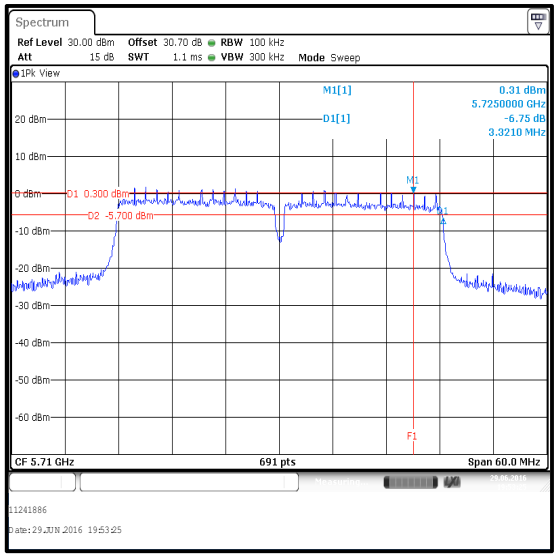
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3321	≥500	2821	Complied



Single Channel

Results: 802.11n / 40 MHz / MIMO / BPSK / MCS0 / Port 2

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3321	≥500	2821	Complied

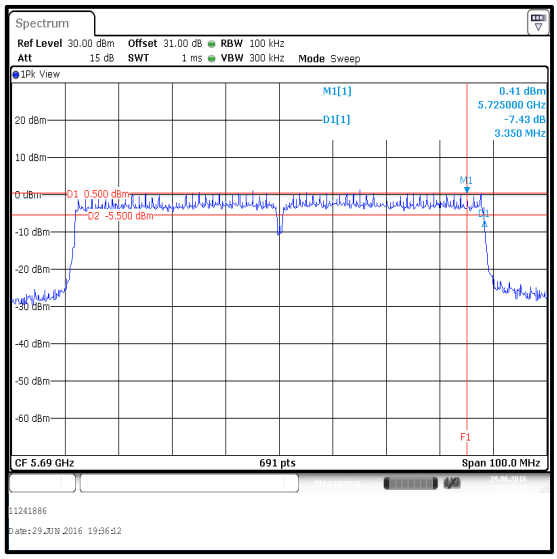


Single Channel

Transmitter Minimum 6 dB Bandwidth (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11ac / 80 MHz / MIMO / BPSK / MCS0x1 / Port 1

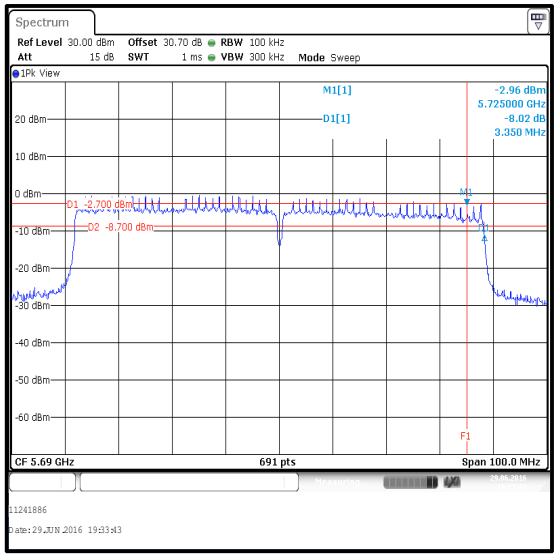
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3350	≥500	2850	Complied



Single Channel

Results: 802.11ac / 80 MHz / MIMO / BPSK / MCS0x1 / Port 2

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	3350	≥500	2850	Complied

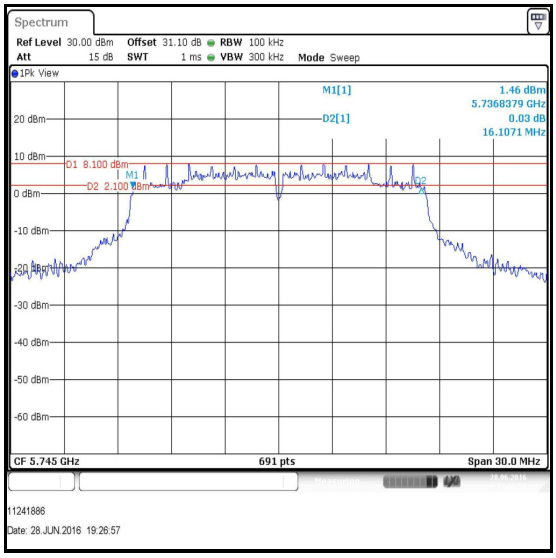


Single Channel

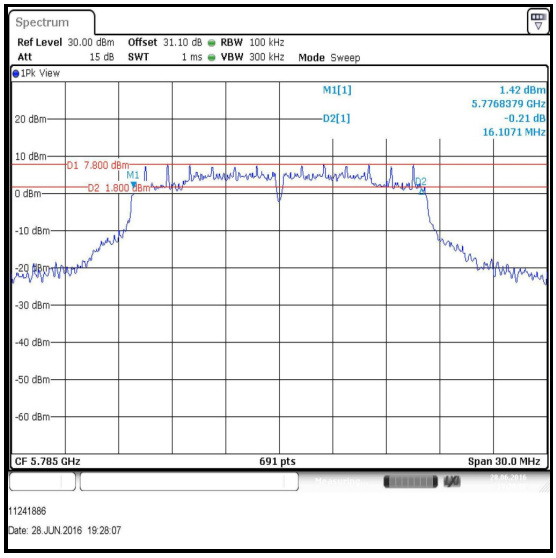
Transmitter Minimum 6 dB Bandwidth (5.725-5.85 GHz band) (continued)

Results: 802.11a / 20 MHz / BPSK / 6 Mbps

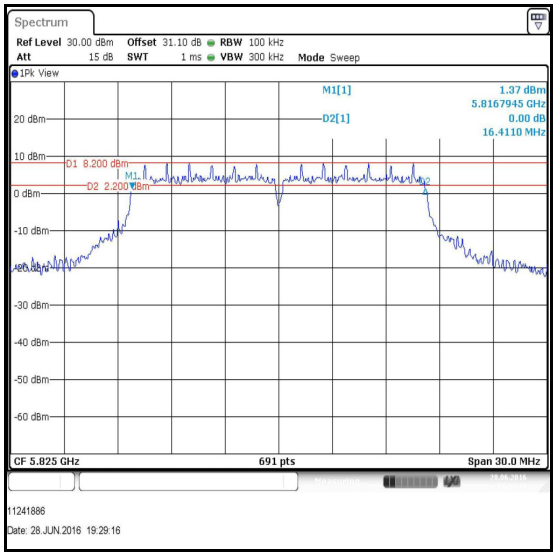
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Bottom	16107	≥500	15607	Complied
Middle	16107	≥500	15607	Complied
Top	16411	≥500	15911	Complied



Bottom Channel



Middle Channel

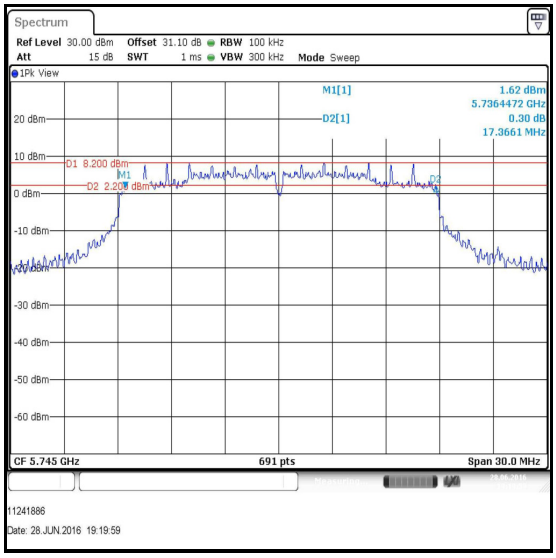


Top Channel

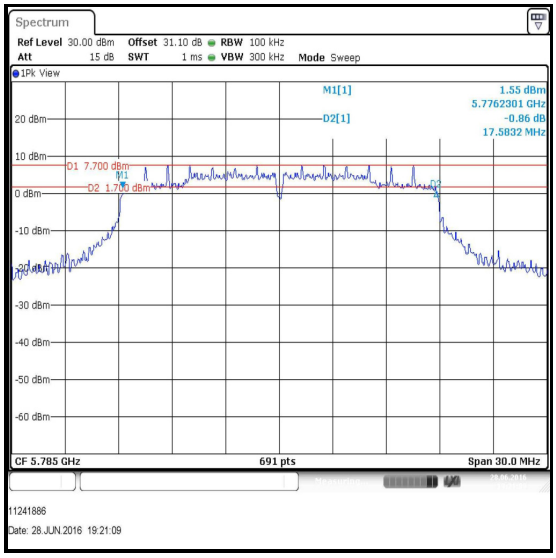
Transmitter Minimum 6 dB Bandwidth (5.725-5.85 GHz band) (continued)

Results: 802.11n / 20 MHz / SISO / BPSK / MCS0

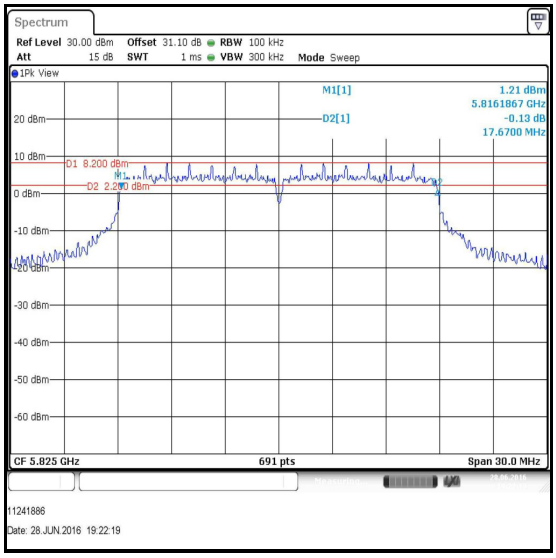
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Bottom	17366	≥500	16866	Complied
Middle	17583	≥500	17083	Complied
Top	17670	≥500	17170	Complied



Bottom Channel



Middle Channel

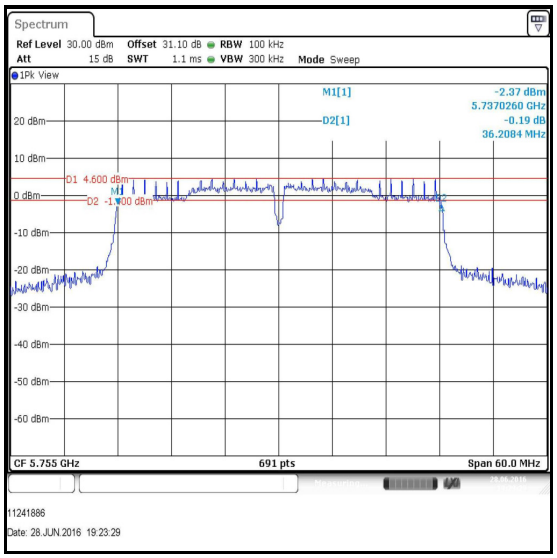


Top Channel

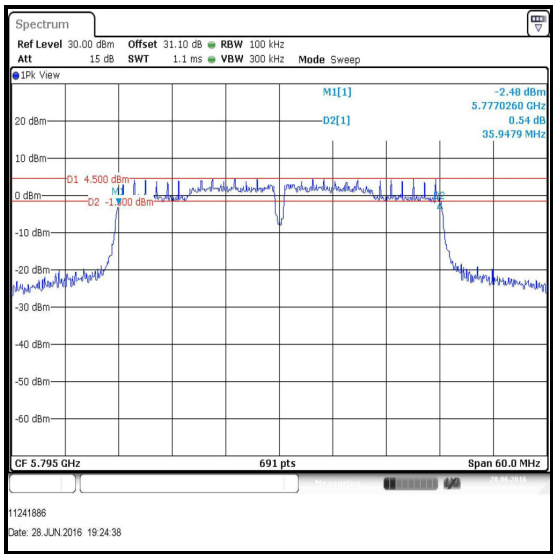
Transmitter Minimum 6 dB Bandwidth (5.725-5.85 GHz band) (continued)

Results: 802.11n / 40 MHz / SISO / BPSK / MCS0

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Bottom	36208	≥500	35708	Complied
Top	35948	≥500	35448	Complied



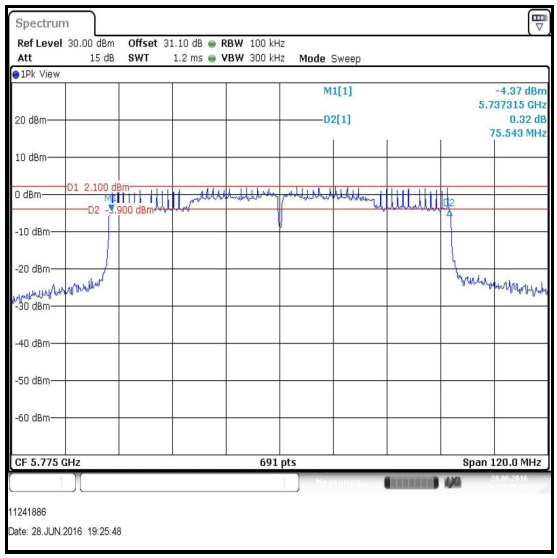
Bottom Channel



Top Channel

Results: 802.11n / 80 MHz / SISO / BPSK / MCS0

Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	75543	≥500	75043	Complied

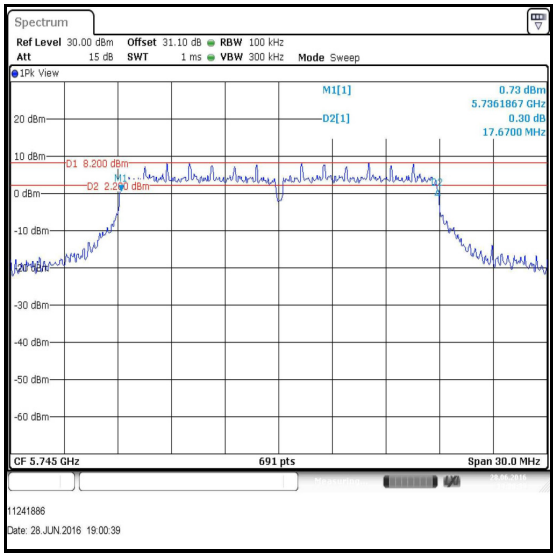


Single Channel

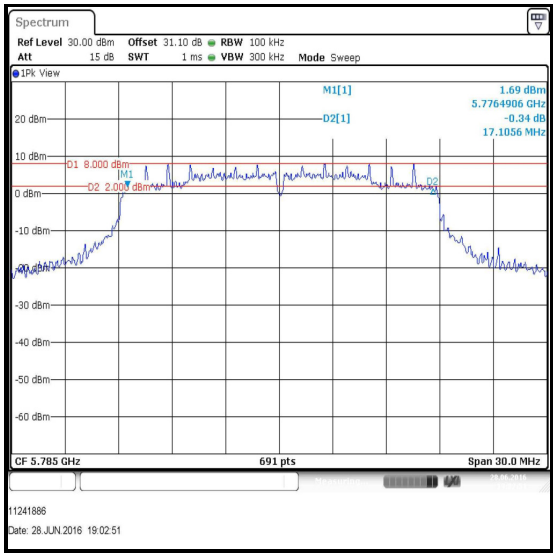
Transmitter Minimum 6 dB Bandwidth (5.725-5.85 GHz band) (continued)

Results: 802.11n / 20 MHz / MIMO / BPSK / MCS0 / Port 1

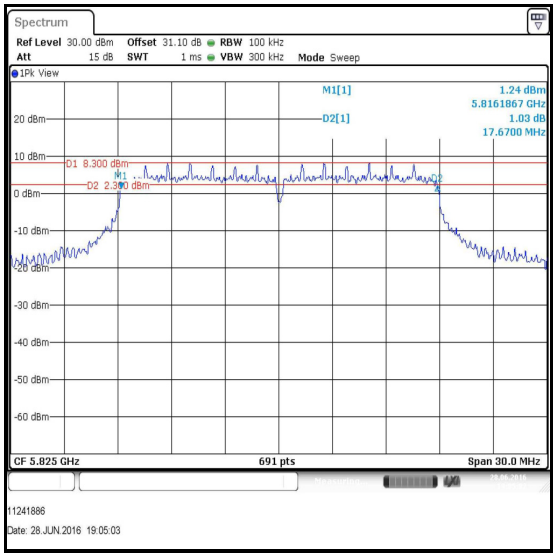
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Bottom	17670	≥500	17170	Complied
Middle	17106	≥500	16606	Complied
Top	17670	≥500	17170	Complied



Bottom Channel



Middle Channel

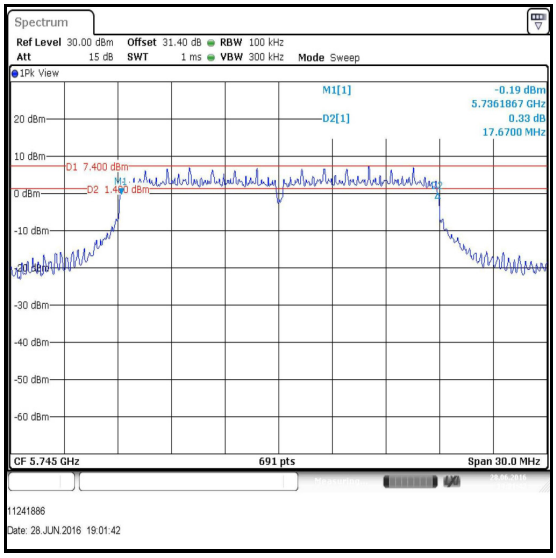


Top Channel

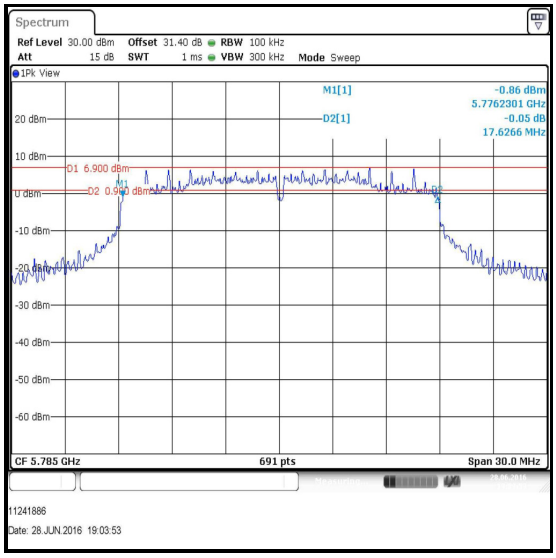
Transmitter Minimum 6 dB Bandwidth (5.725-5.85 GHz band) (continued)

Results: 802.11n / 20 MHz / MIMO / BPSK / MCS0 / Port 2

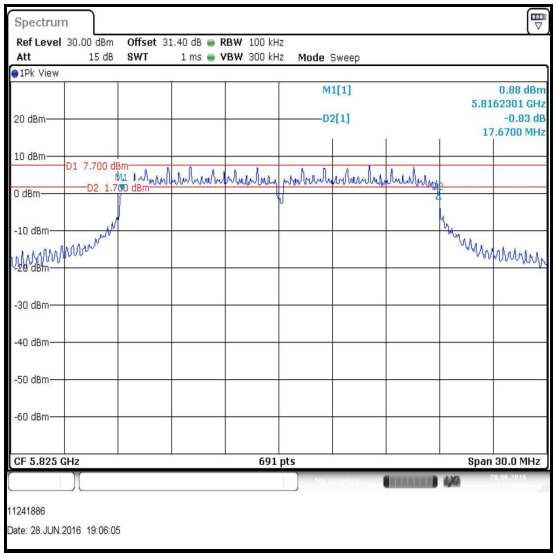
Channel	6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Bottom	17670	≥500	17170	Complied
Middle	17627	≥500	17127	Complied
Top	17670	≥500	17170	Complied



Bottom Channel



Middle Channel



Top Channel