

**SUBMITTED MEASURED DATA INDEX**

<u>EXHIBIT</u>	<u>MEASUREMENT</u>
9A	RF OUTPUT MEASURED DATA
9B	OCCUPIED BANDWIDTH-GRAPHS
9C-1,2,3	FCC CONDUCTED SPURIOUS EMISSIONS-GRAPHS
9D	FCC RADIATED SPURIOUS EMISSIONS-GRAPHS
9E	FREQUENCY STABILITY VS TEMP-GRAPH
9F	FREQUENCY STABILITY VS VOLTAGE-GRAPH
9G-1,2	TBR41 CONDUCTED SPURIOUS EMISSIONS-GRAPHS
9H	TBR41 RADIATED SPURIOUS EMISSIONS-GRAPHS
9I	TBR41 CONDUCTED EMISSIONS CARRIER OFF
9J-1,2,3,4	TBR41 IN-BAND CONDUCTED EMISSIONS
9K	TBR41 EIRP DENSITY MEASUREMENT

### RF Power Output Data

The RF power output was measured with the indicated voltage and current applied into the final RF amplifying device(s).

The RF output, DC current and RF Input Power are all time-averaged values which reflect a 9.2 % (8.28 ms Tx bursts / 90 ms frame) transmit duty cycle characteristic of transceiver operation.

- RF Output Power: 0.607 Watts
- DC Voltage: 7.5 Volts
- DC Current: 0.404 Amps
- RF Input: 0.092 mW

**BANDWIDTH MEASUREMENT DATA  
FOR TRANSMITTER TYPES Q7W**

**DEVIATION OF THE CARRIER WITH QPSK MODULATION**

HORIZONTAL SCALE = 1 MHz/DIVISION

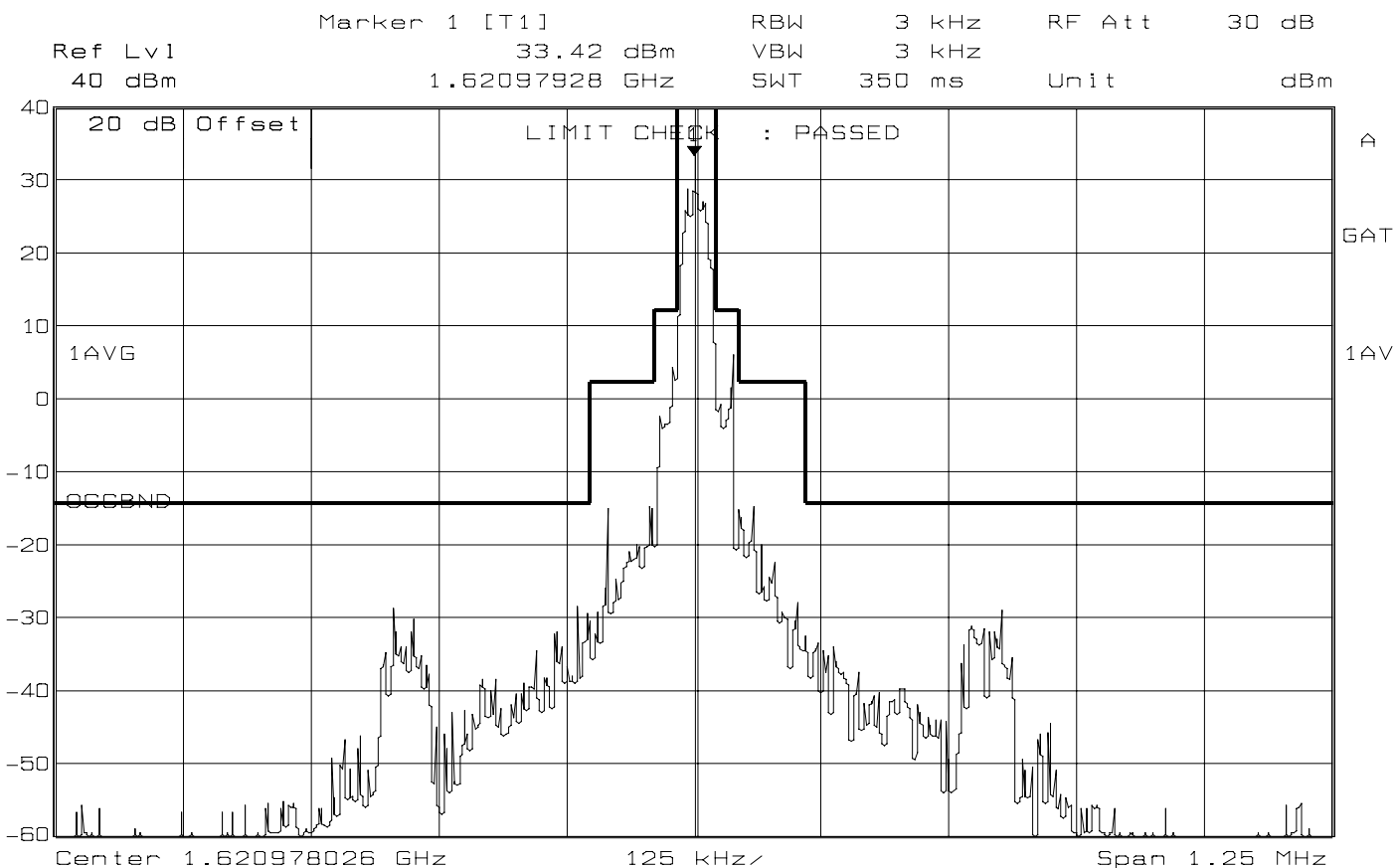
VERTICAL SCALE = 10 dB/DIVISION

RESOLUTION BANDWIDTH = 3 kHz

POWER LEVEL = .6 W (Mean Output Power)

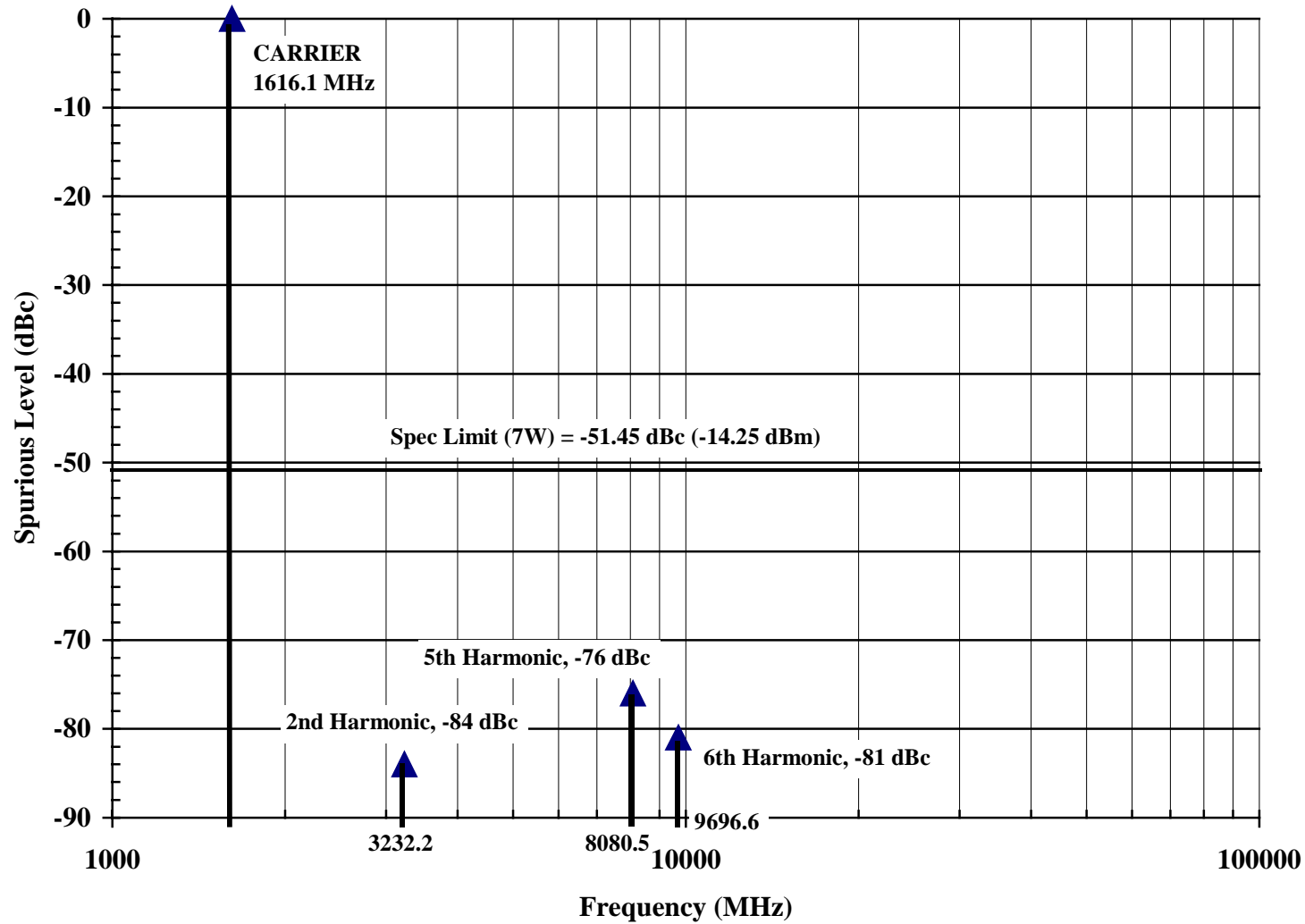
**MEASURED DATA:**

1. Modulate the transmitter with QPSK modulation, using pseudo random data.  
Obtain image on spectrum analyzer.



**COMMENTS:**

A 3 kHz resolution bandwidth was used instead of the 4 kHz specified in 47 CFR 25.202. A correction factor was included in the limit for the bandwidth difference.



**TRANSMITTER CONDUCTED EMISSIONS, CHANNEL #3**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: Channels #3, #120, and #238

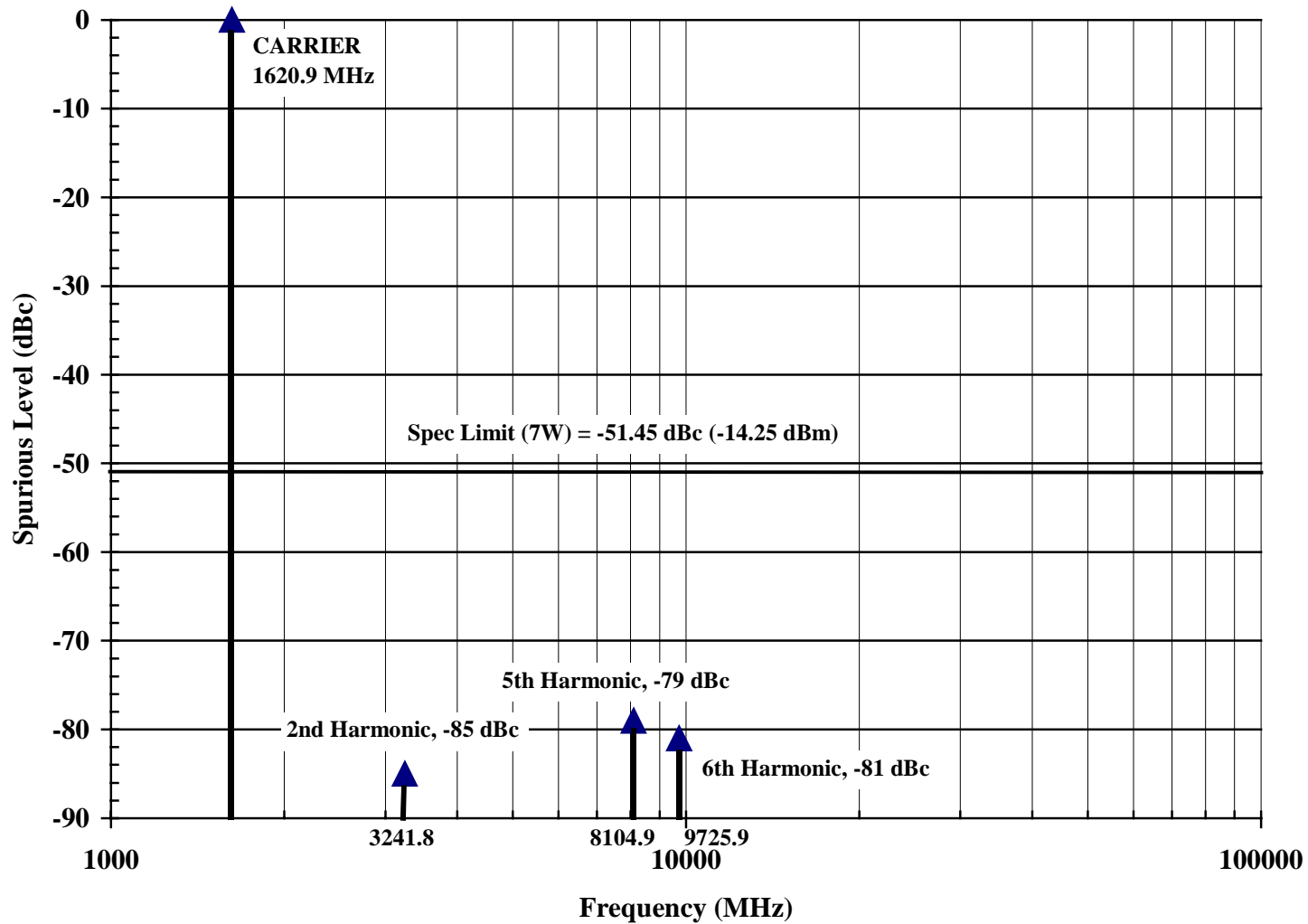
\*All other Emissions greater than 20 dB below the spec were not reported

\*No observable signals in GPS/GNSS band (1559-1605 MHz @ -70dBW/MHz & -80dBW/700Hz)

\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

SSG EMC Group

2/5/99



**TRANSMITTER CONDUCTED EMISSIONS, CHANNEL #120**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

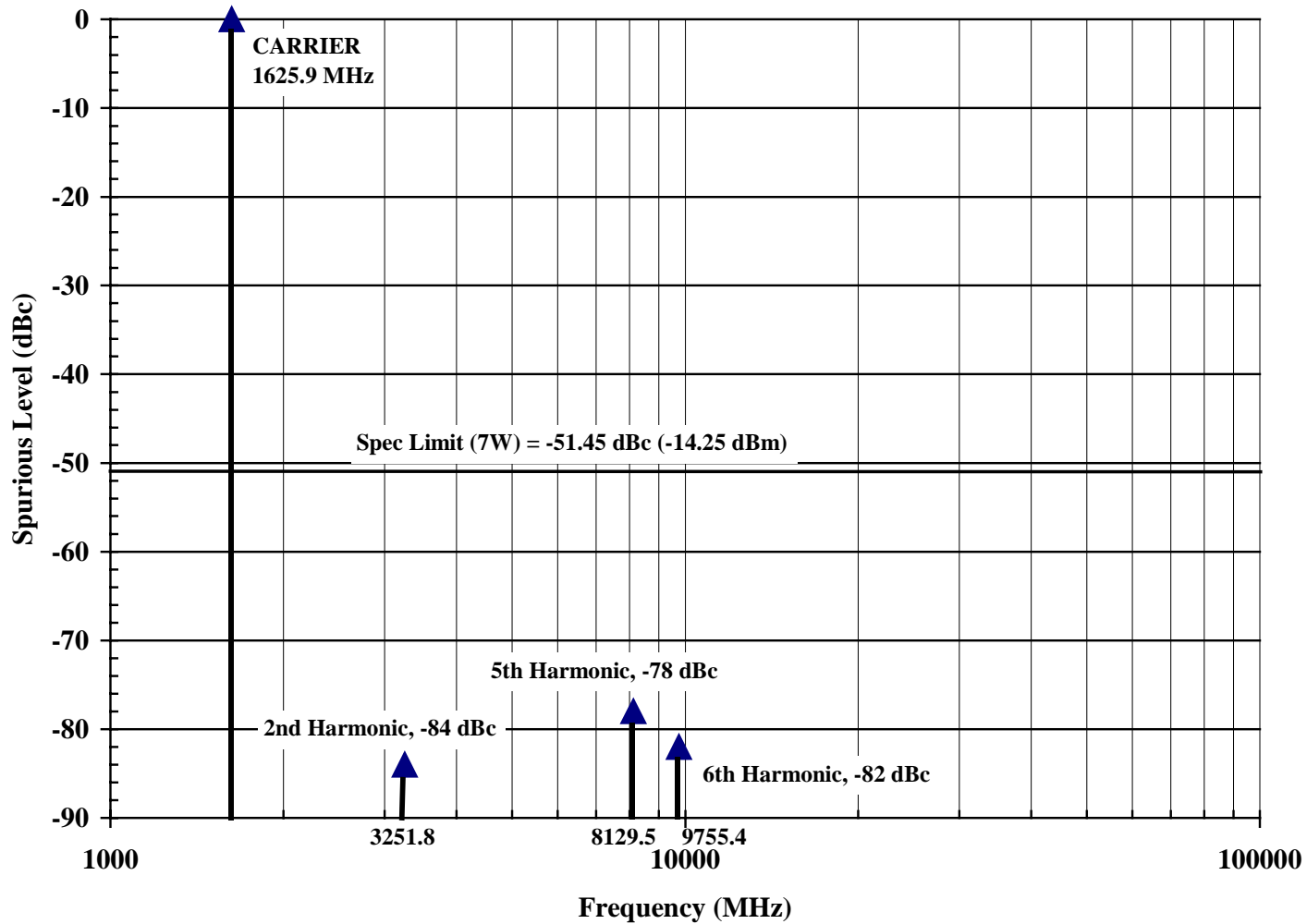
Channels Tested: Channels #3, #120, and #238

\*Emissions greater than 20 dB below the spec were not reported

\*No observable signals in GPS/GNSS band (1559-1605 MHz @ -70dBW/MHz & -80dBW/700Hz)

\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

SSG EMC Group  
2/5/99



**TRANSMITTER CONDUCTED EMISSIONS, CHANNEL #238**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

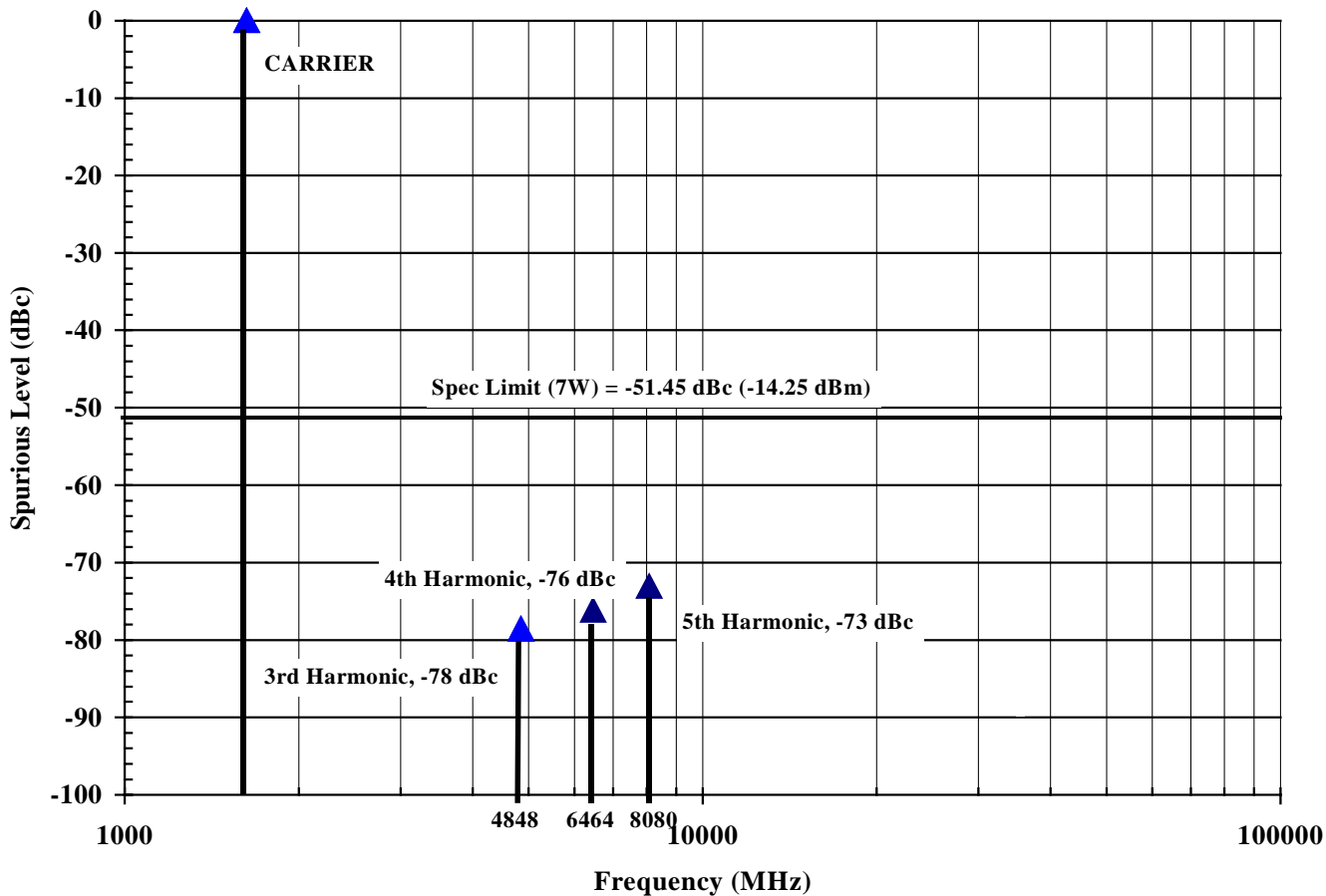
Channels Tested: Channels #3, #120, and #238

\*Emissions greater than 20 dB below the spec were not reported

\*No observable signals in GPS/GNSS band (1559-1605 MHz @ -70dBW/MHz & -80dBW/700Hz)

\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

SSG EMC Group  
2/5/99



**TRANSMITTER RADIATED EMISSIONS, MAX LEVELS OF CHANNELS #3, 120, 238**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

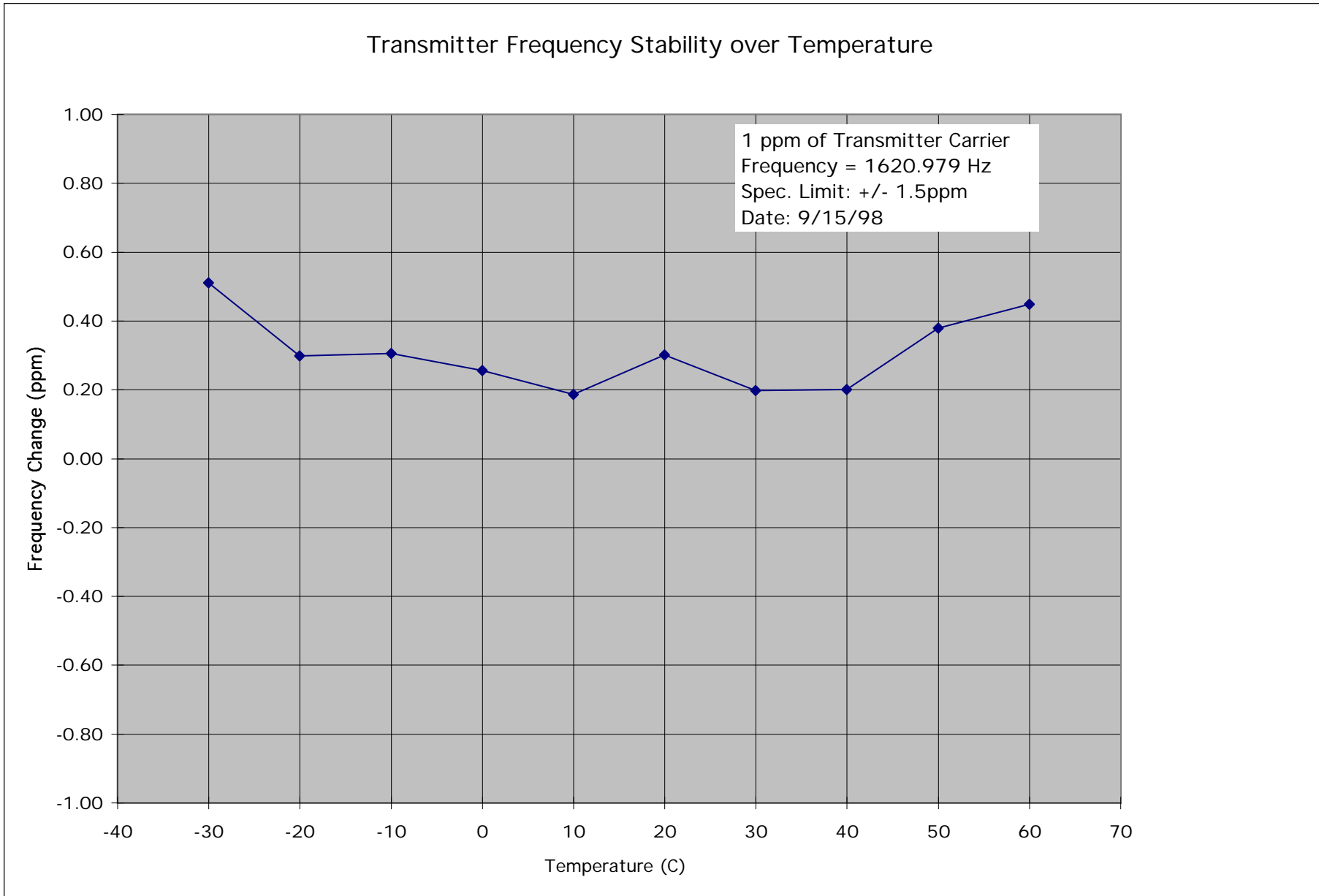
Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: Channels #3, #120, and #238

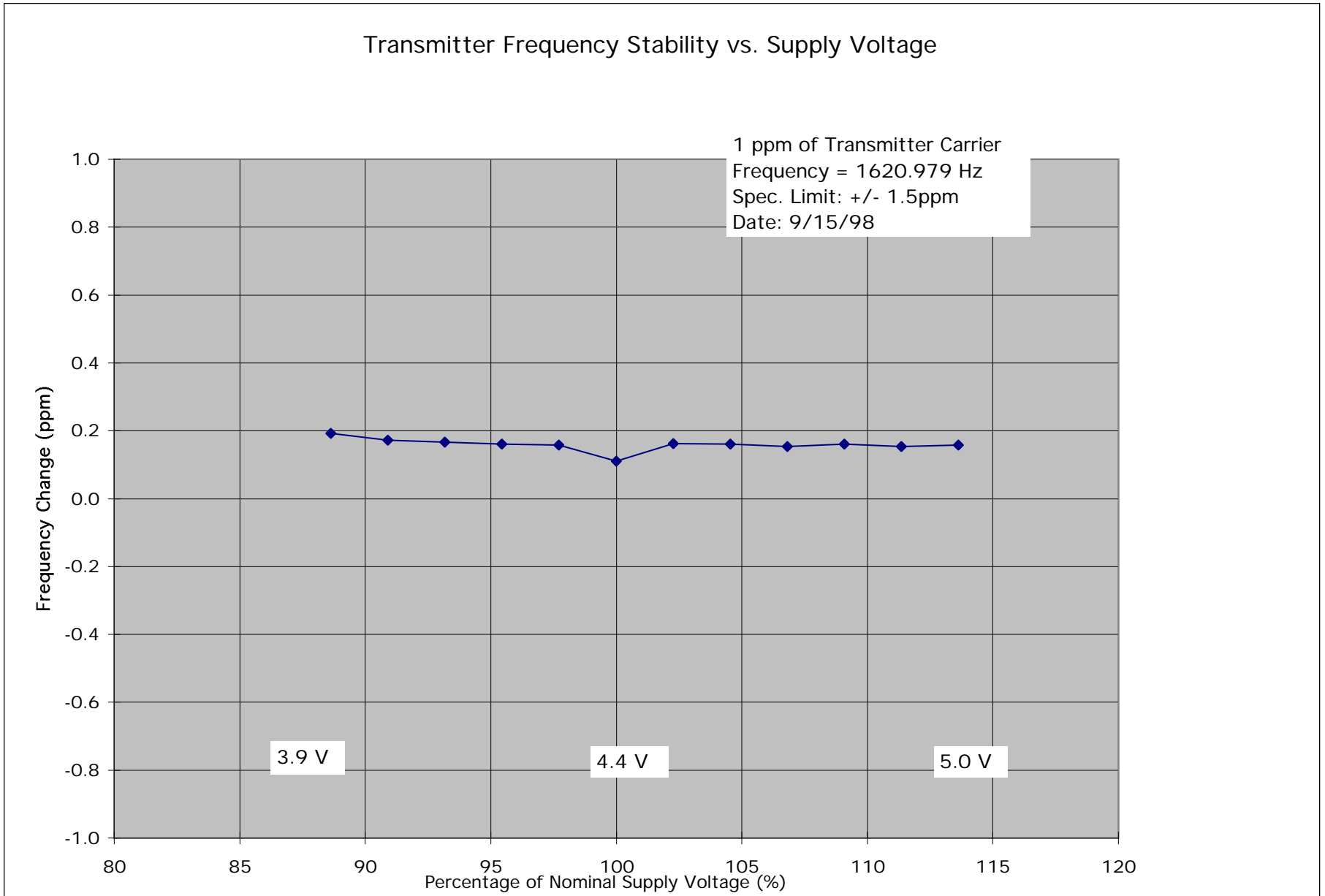
\*Emissions greater than 20 dB below the spec were not reported

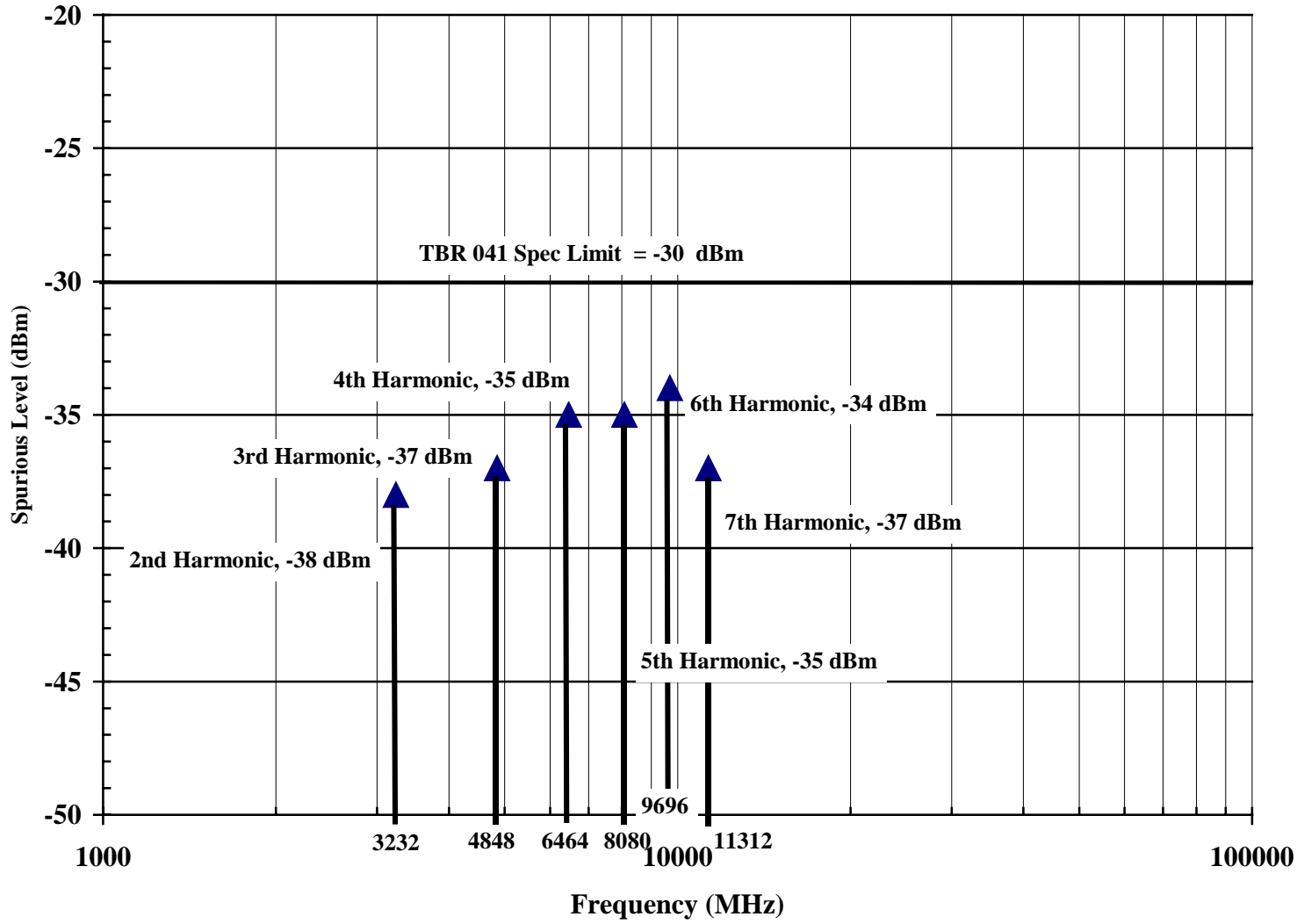
\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

SSG EMC Group  
2/5/99









**TBR 041 OUT OF BAND CONDUCTED EMISSIONS, CHANNEL #3**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

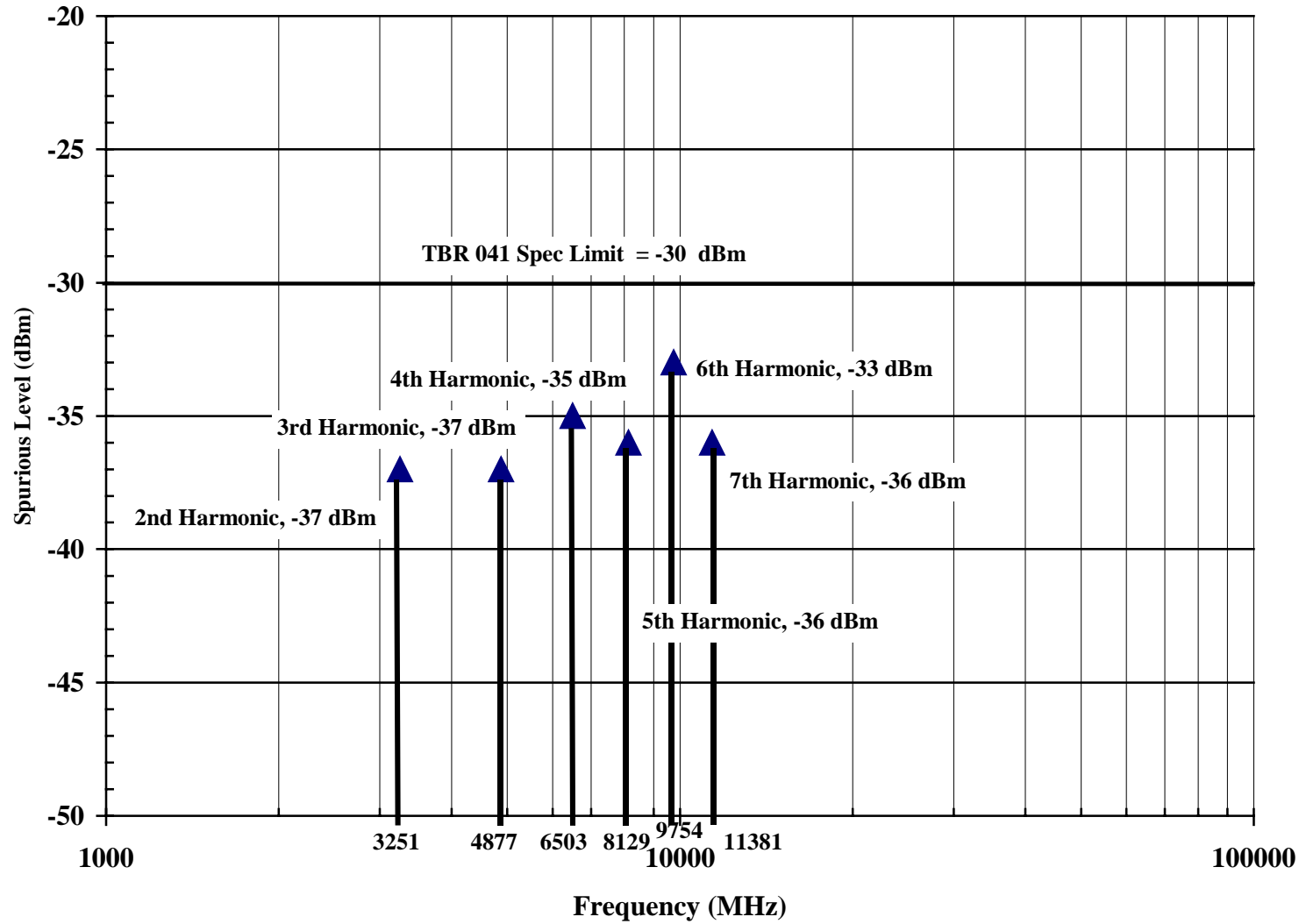
Channels Tested: #3 and #238

\*No observable signals in GPS/GNSS Band (1559-1605 MHz @ -70dBW/MHz), MSS> 6 dB below spec

\*Emissions greater than 20 dB below the spec were not reported

\*Spectrum search performed from 100 kHz to 12.75 GHz

SSG EMC Group  
2/5/99



**TBR 041 OUT OF BAND CONDUCTED EMISSIONS, CHANNEL #238**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

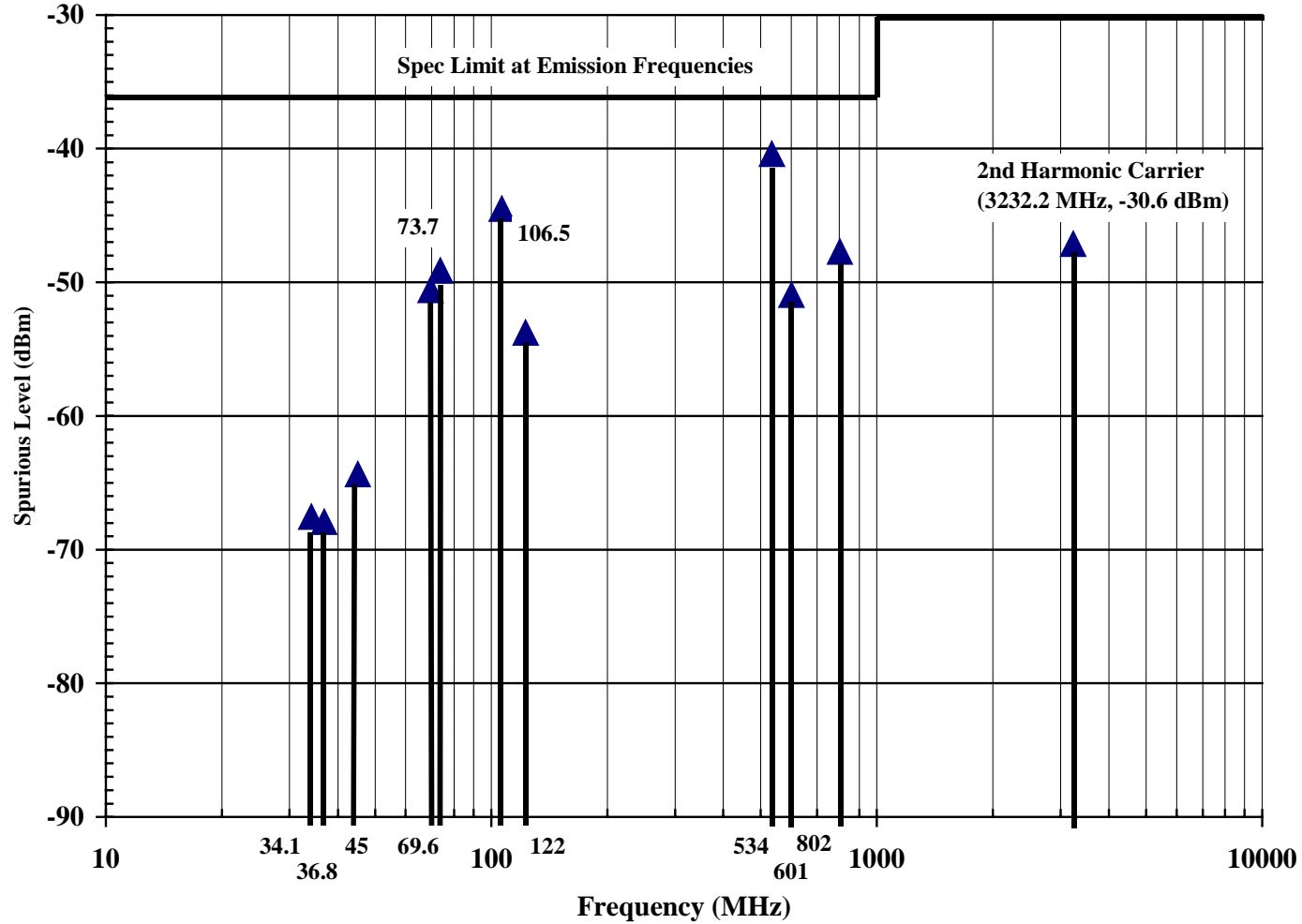
Channels Tested: #3 and #238

\*No observable signals in GPS/GNSS Band (1559-1605 MHz @ -70dBW/MHz), MSS> 6 dB below spec

\*Emissions greater than 20 dB below the spec were not reported

\*Spectrum search performed from 100 kHz to 12.75 GHz

SSG EMC Group  
2/5/99



**RADIATED EMISSIONS, CABINET, ANTENNA PORT TERMINATED**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

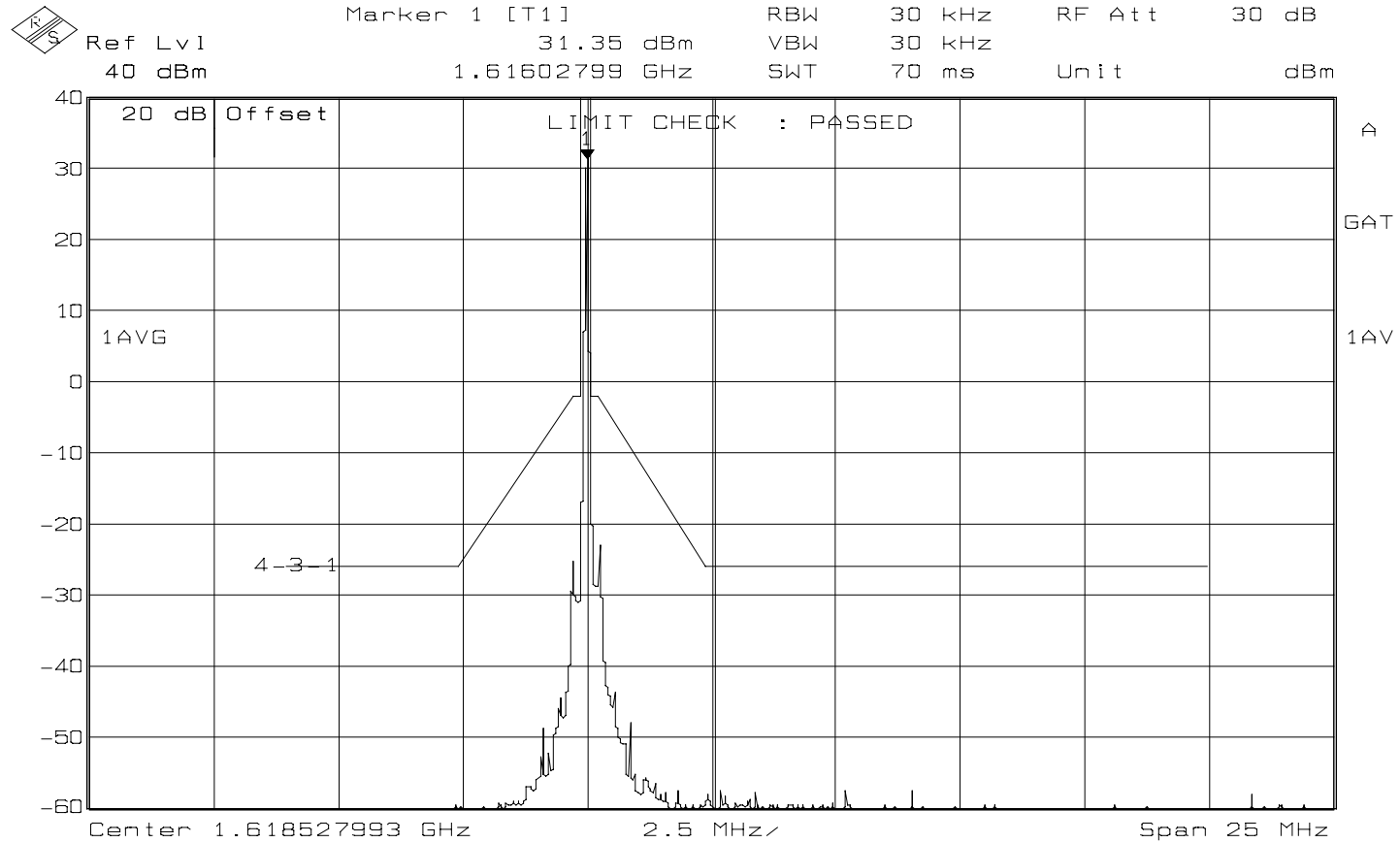
Channels Tested: #3 and #238 (Graph represents worst case emissions)

\*All other emissions greater than 20 dB below the spec were not reported

\*Spectrum search performed from 30 MHz to 4 GHz

SSG EMC Group  
2/5/99



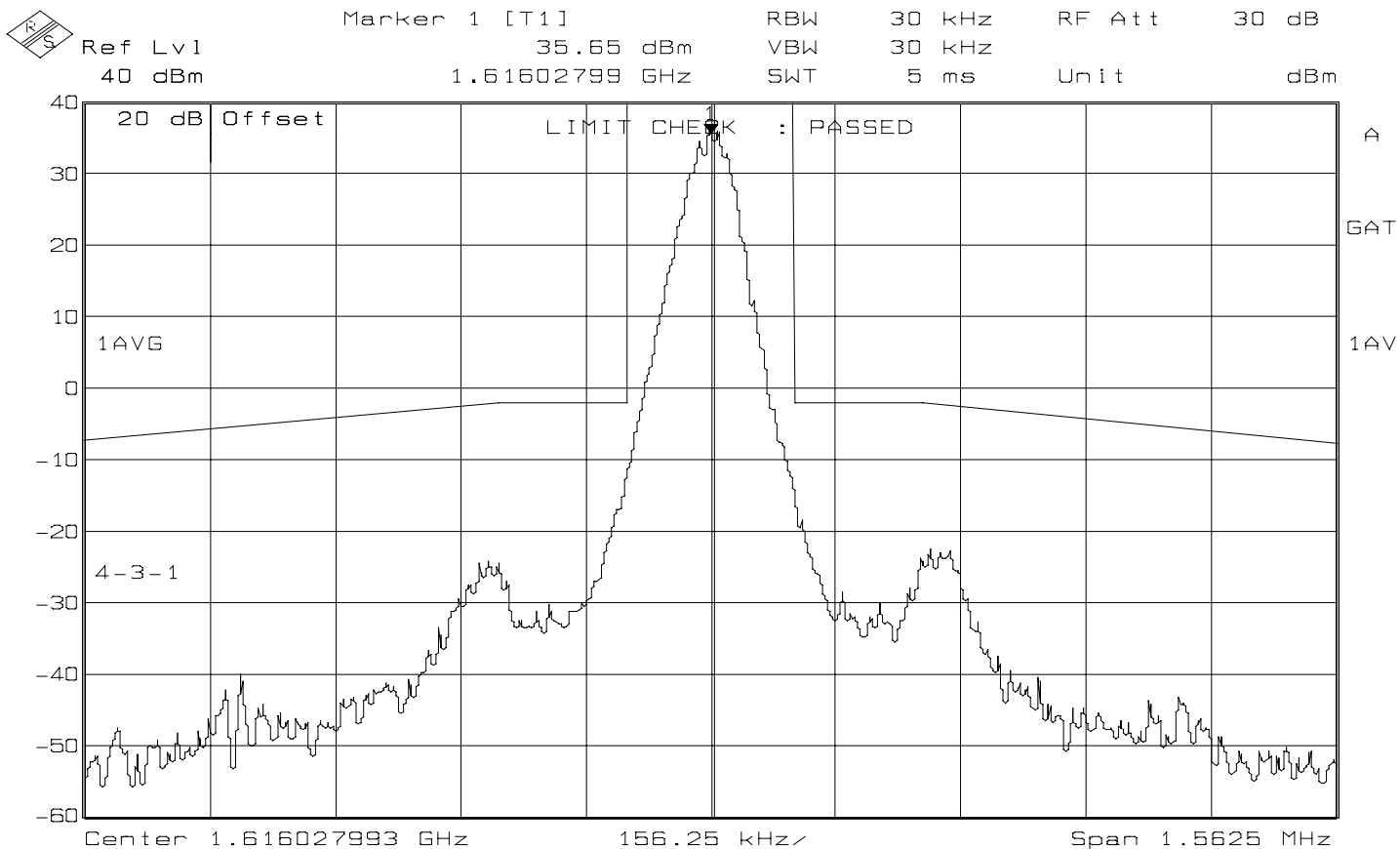


**TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #3**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)  
Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)  
Channels Tested: #3 and #238

\*Spectrum search performed from 1610 MHz to 1628.5 MHz

SSTG EMC Group  
2/5/99

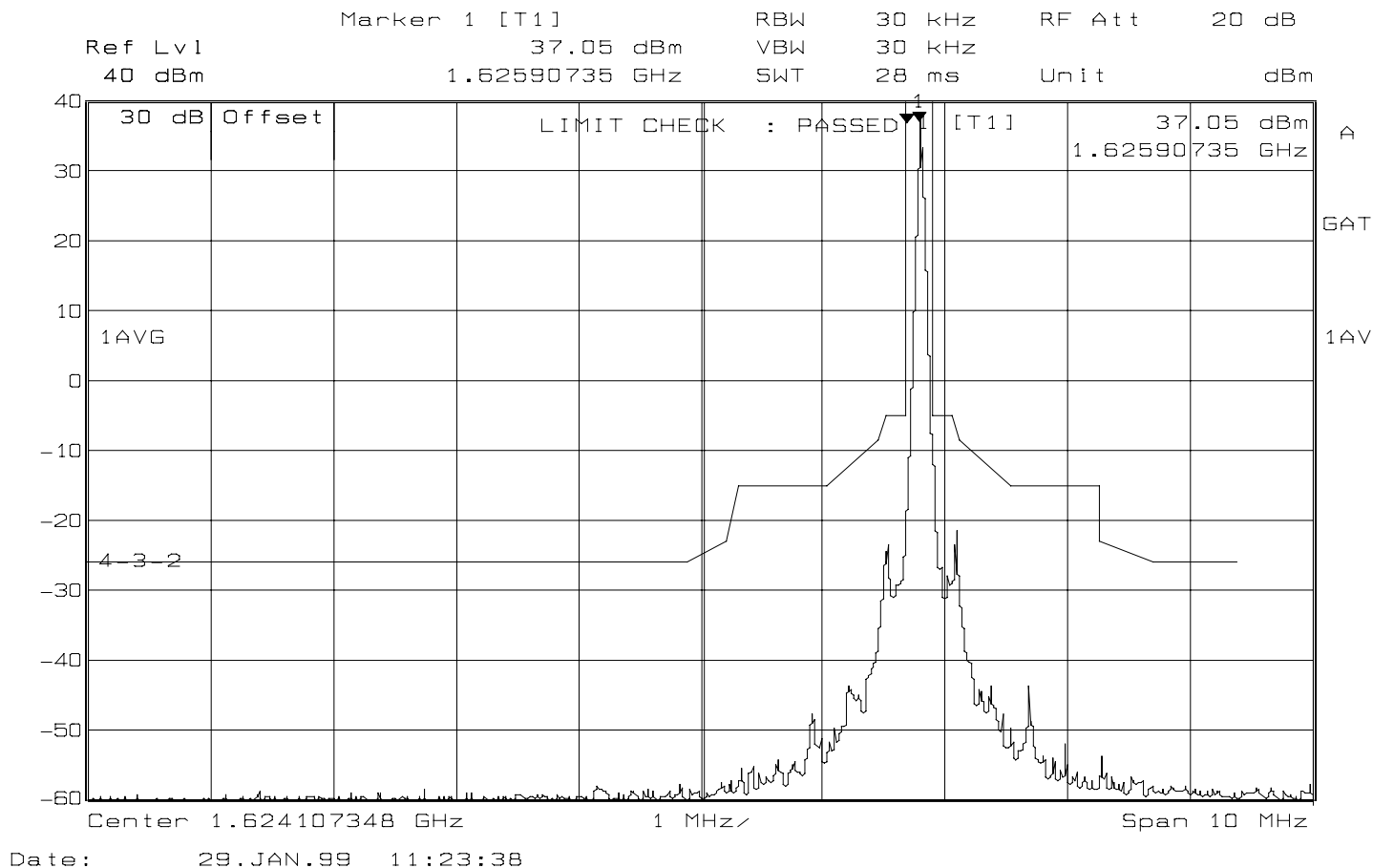


**TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #3**

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)  
 Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)  
 Channels Tested: #3 and #238

\*Spectrum search performed from 1610 MHz to 1628.5 MHz

SSG EMC Group  
 2/5/99



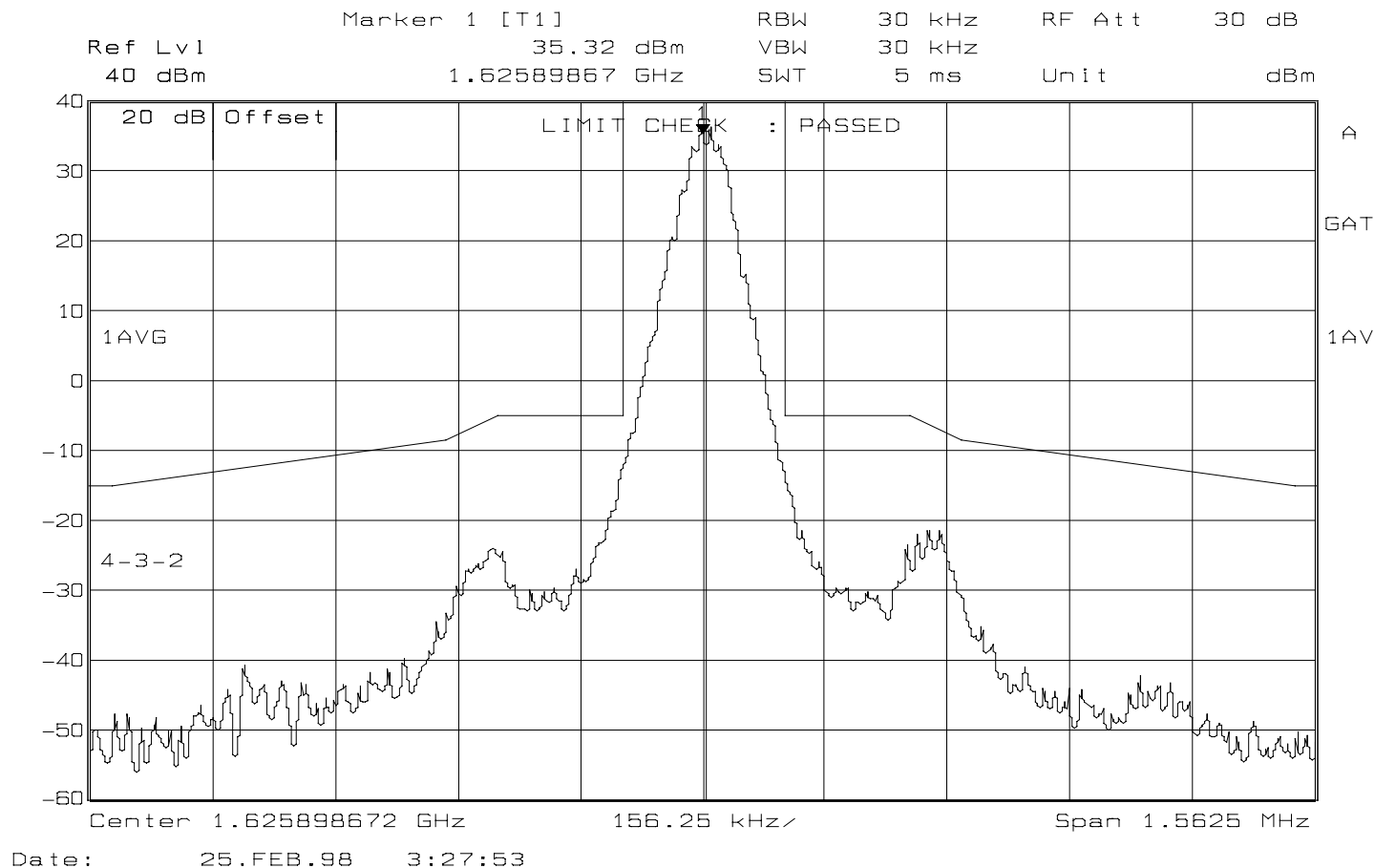
**TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #238**

**Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)**  
**Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)**  
**Channels Tested: #3 and #238**

\*Spectrum search performed from 1610 MHz to 1628.5 MHz

**SSG EMC Group**  
**2/5/99**





**TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #238**

**Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)**  
**Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)**  
**Channels Tested: #3 and #238**

\*Spectrum search performed from 1610 MHz to 1628.5 MHz

**SSG EMC Group**  
**2/5/99**

MOTOROLA SSG DATA SHEET

<b>TBR 041</b> <b>EIRP Density Measurement</b>			<b>Comments</b>
Equip. <u>NOMAD MXU</u> Mode: <u>Traffic Channel</u> Model#: <u>2000</u> Serial #: <u>E.M.01</u>	Test Date: <u>2/5/99</u> Test Technician: <u>R. Johnston</u> Measurement Distance (m) <u>Conducted</u> Equipment Class <u>N/A</u>		
<b>Frequency (MHz)</b>	<b>EIRP Density (dBm/4kHz)</b>	<b>EIRP Density mean limit (dBm/4kHz)</b>	
1616.028	+16.85	+27	Channel #01
1616.100	+16.89	+27	Channel # 03
1616.188	+16.90	+27	Channel #05
1616.271	+16.92	"	Channel #07
1621.062	+17.06	"	Channel #122
1621.145	+17.05	"	Channel #124
1621.229	+17.05	"	Channel #126
1621.312	+16.86	"	Channel #126
1625.645	+16.71	"	Channel #232
1625.729	+16.67	"	Channel #234
1625.812	+16.65	+27	Channel # 236
1625.895	+16.68	+27	Channel #238