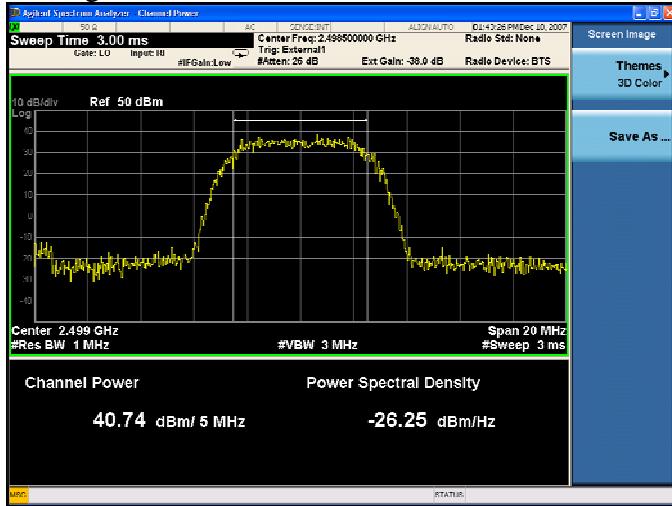
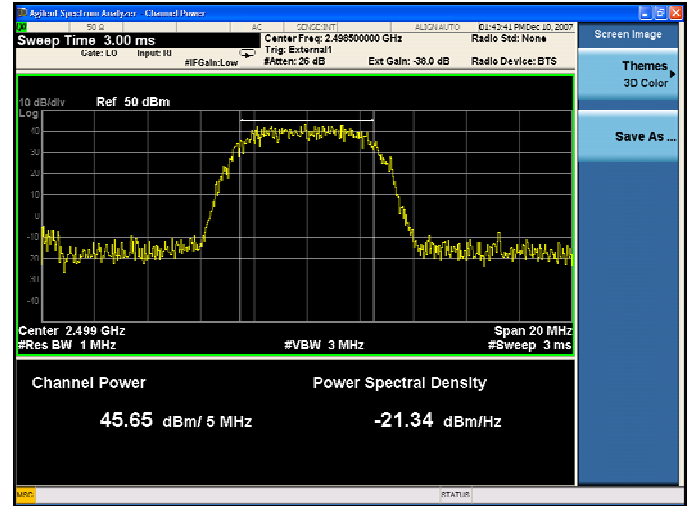


Main Signal – 2498.5MHz

Average

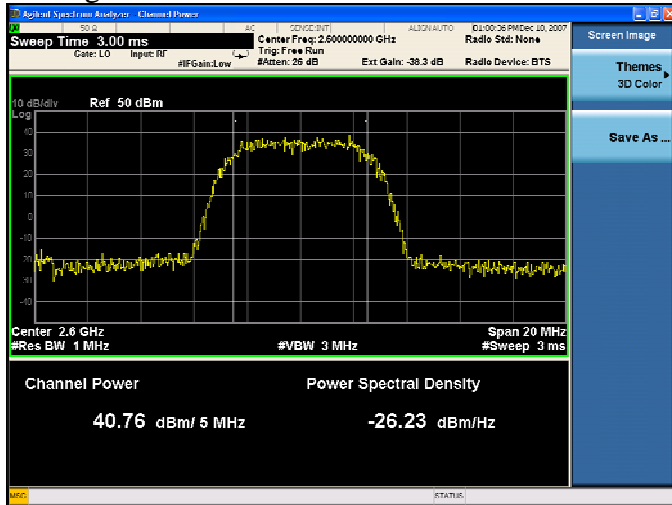


Peak

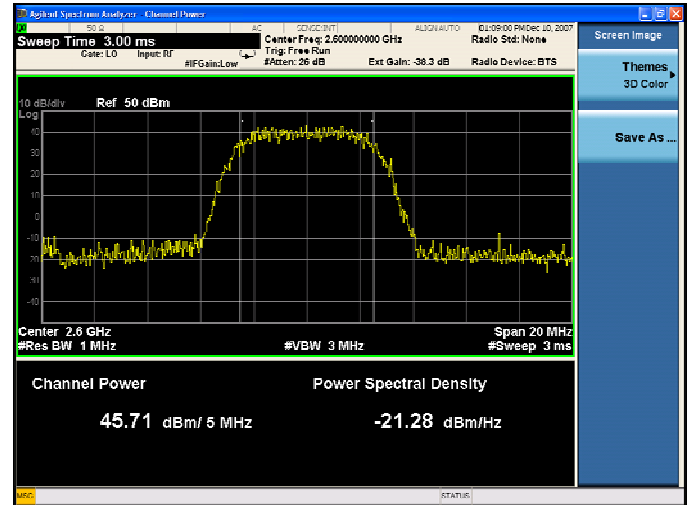


Main Signal – 2600MHz

Average

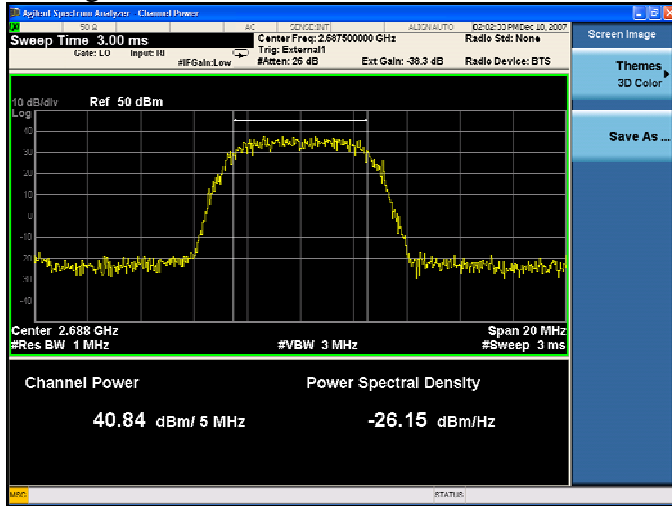


Peak

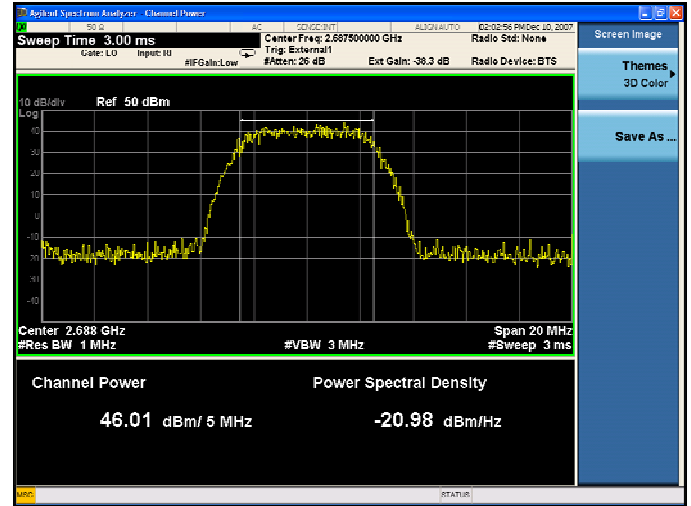


Main Signal – 2687.5MHz

Average

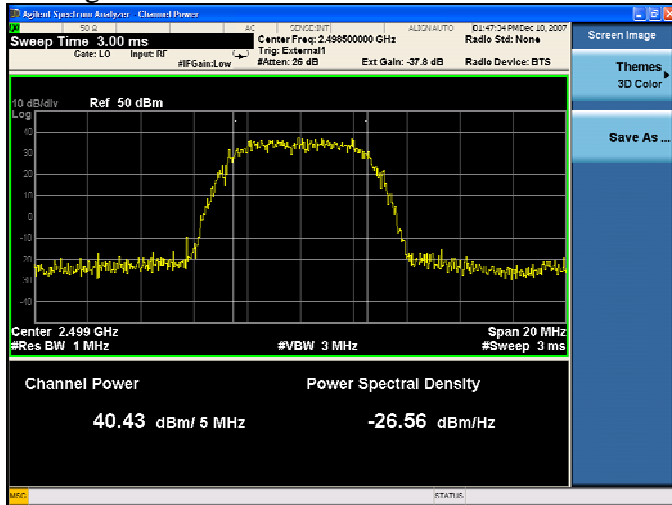


Peak

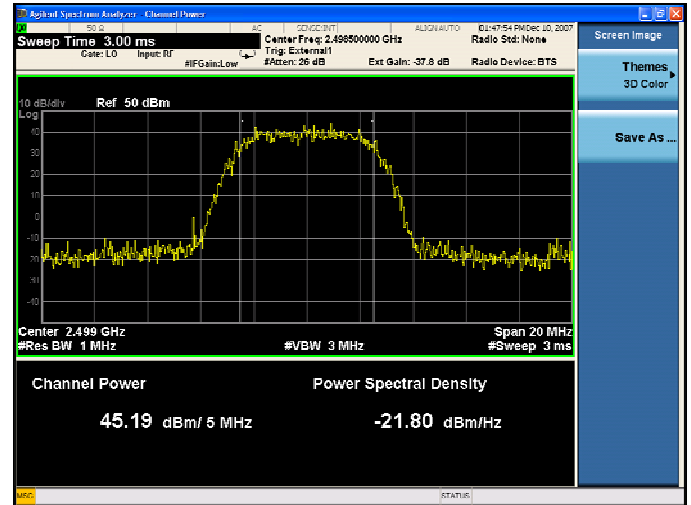


Diversity Signal – 2498.5MHz

Average

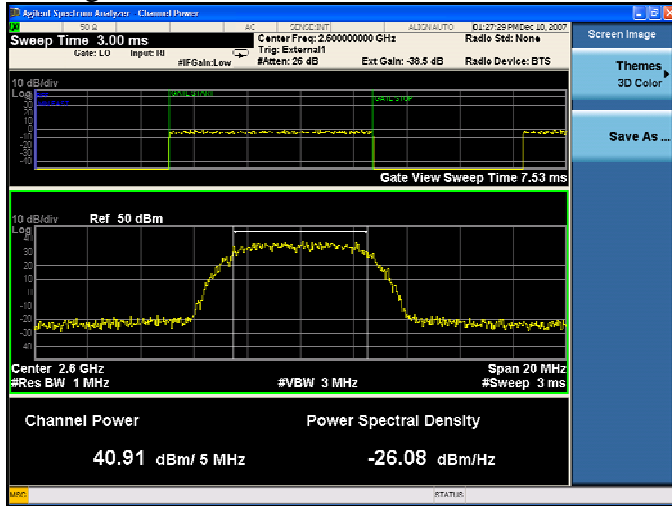


Peak

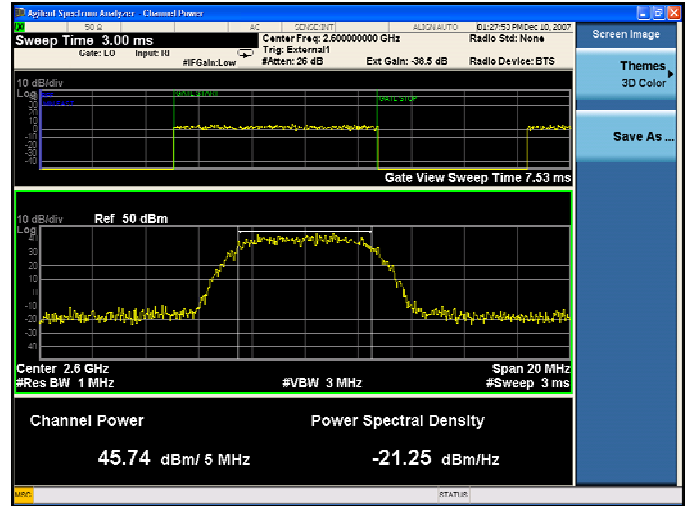


Diversity Signal – 2600MHz

Average

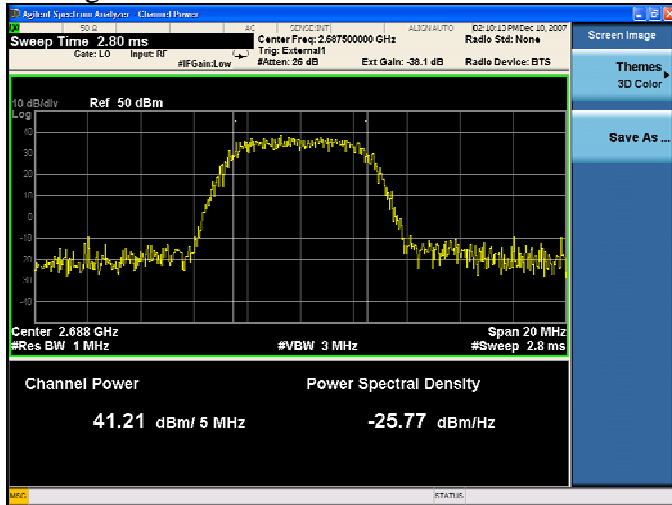


Peak

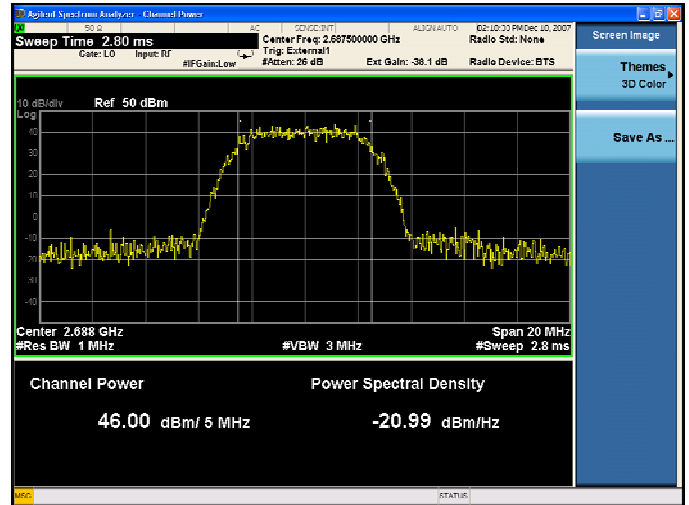


Diversity Signal – 2687.5MHz

Average



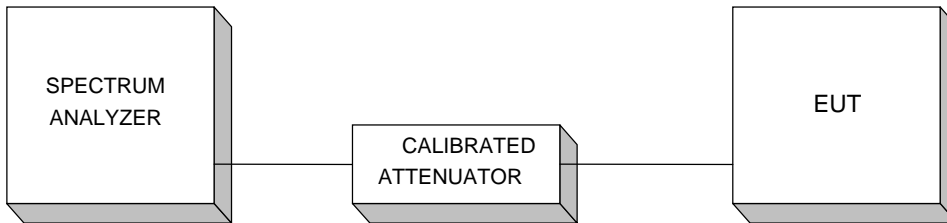
Peak



**Clause 27.53(l)(6) Occupied Bandwidth**

(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

**Test Setup**

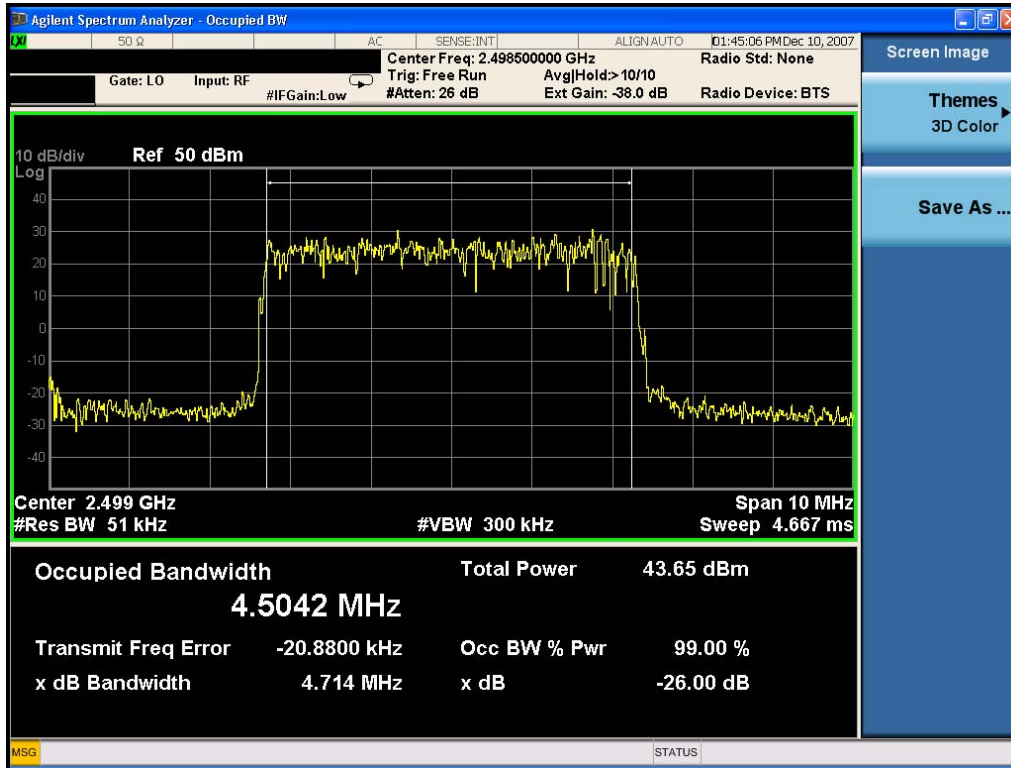


**Setting remarks**

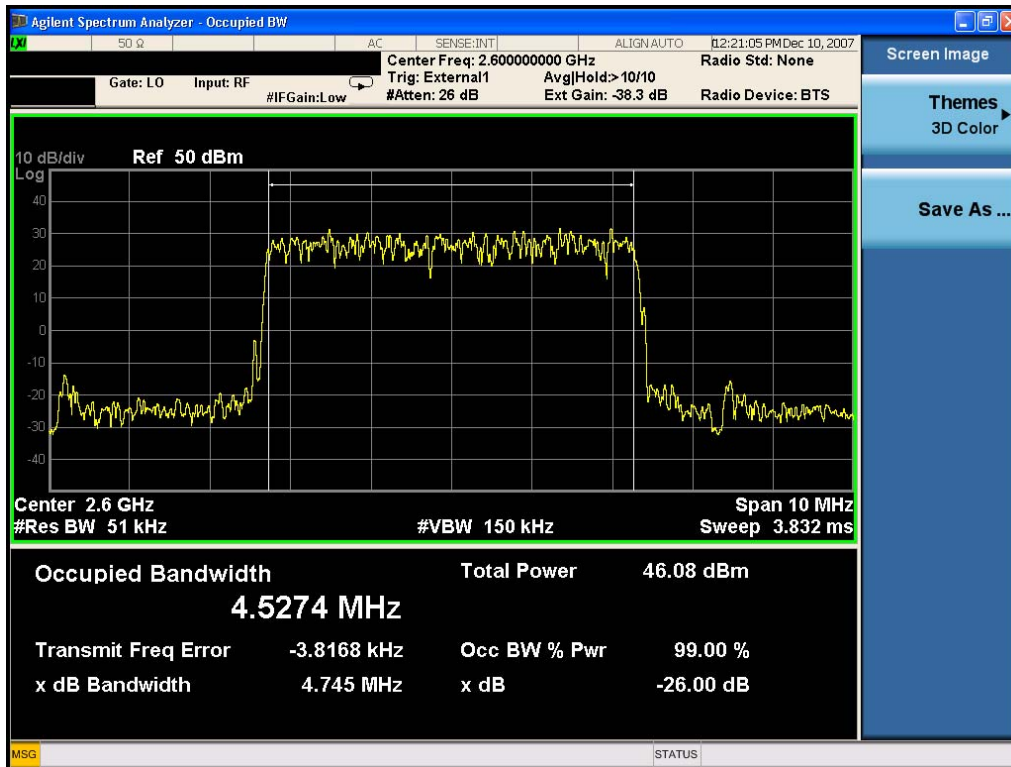
1. 26dB occupied bandwidth would be measured using the spectrum analyzer.
2. Low, medium and high frequencies would be tested. All modulations (BPSK, QPSK, 16QAM, and 64QAM) modes and different data rates would be evaluated using a combined waveform representative of all 4-modulation schemes.
3. Spectrum analyzer settings:  
 RBW/VBW: More than 1% of rated occupied bandwidth  
 VBW: ≥RBW  
 Detector: Peak

Frequency (MHz)	Occupied Bandwidth (MHz)
2498.5	4.714
2600	4.745
2687.5	4.710

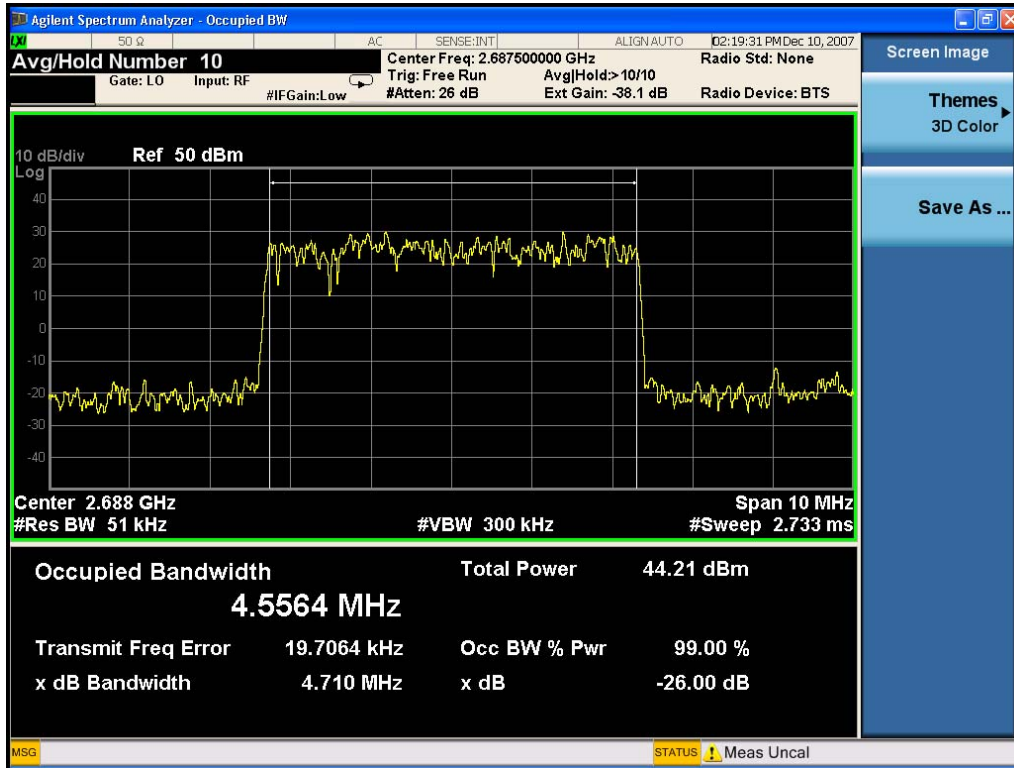
26dB Bandwidth – 2498.5MHz



26dB Bandwidth – 2600MHz



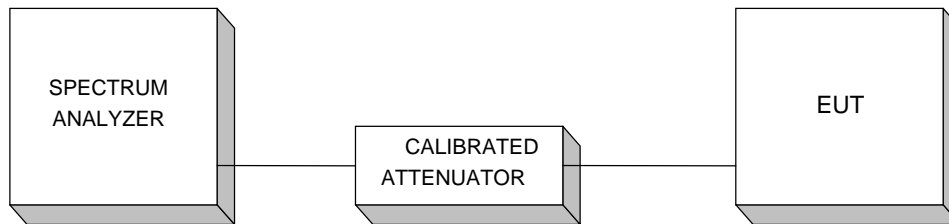
26dB Bandwidth – 2687.5MHz



**Clause 27.53(l) spurious emissions at the antenna terminal**

- (1) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts.
- (2) For fixed and temporary fixed digital stations, the attenuation shall be not less than  $43 + 10 \log (P)$  dB, unless a documented interference complaint is received from an adjacent channel licensee. Provided that the complaint cannot be mutually resolved between the parties, both licensees of existing and new systems shall reduce their out-of-band emissions by at least  $67 + 10 \log (P)$  dB measured at 3 MHz from their channel's edges for distances between stations exceeding 1.5 km.
- (6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

**Test Setup:**

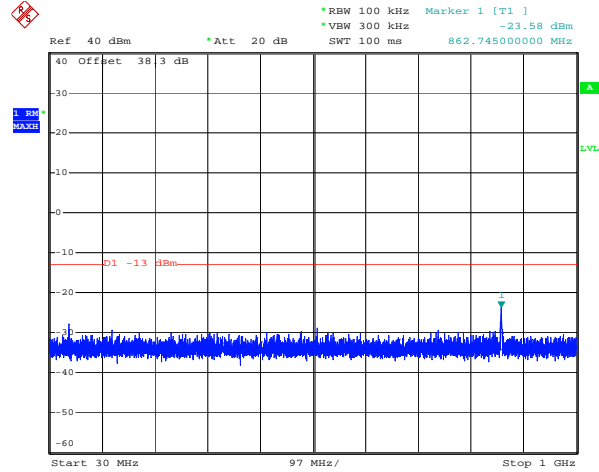


**Setting Remarks:**

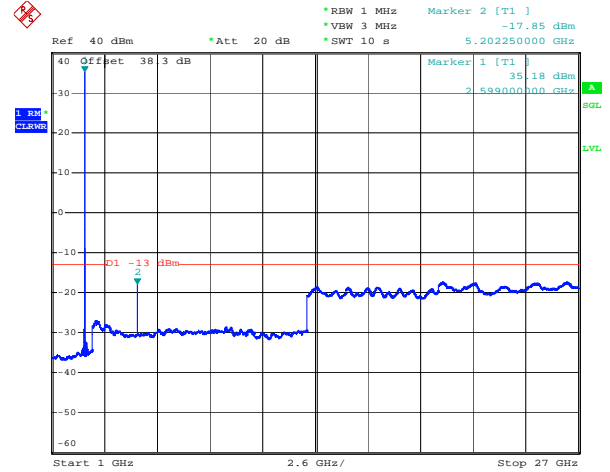
1. Conducted spurious emission measurement would be performed.
2. Frequency scan would start from 30MHz to 10<sup>th</sup> Harmonics. The measurements would be performed using RMS detector with 1MHz/3MHz RBW/VBW settings.
3. Band edge check would be conducted with the EUT operated the nearest channel to the band edge.
4. To measure the emission level at the 1 MHz bands immediately outside the frequency band, RBW/VBW in the spectrum analyzer would be set up to more than 1% of the emission bandwidth. RM detector would be applied.
5. To measure the emission level more than the 1 MHz bands outside the frequency band, RBW/VBW in the spectrum analyzer would be set up to more than 1% of the emission bandwidth, with the measured power being integrated to 1MHz. The RMS detector would be applied.
6. The test would be repeated both for individual chain and combined transmitters configuration.
7. All modulations (BPSK, QPSK, 16QAM, and 64QAM) modes and different data rates would be evaluated using a combined waveform representative of all 4-modulation schemes.



### Conducted Emissions Main Signal – 2600MHz

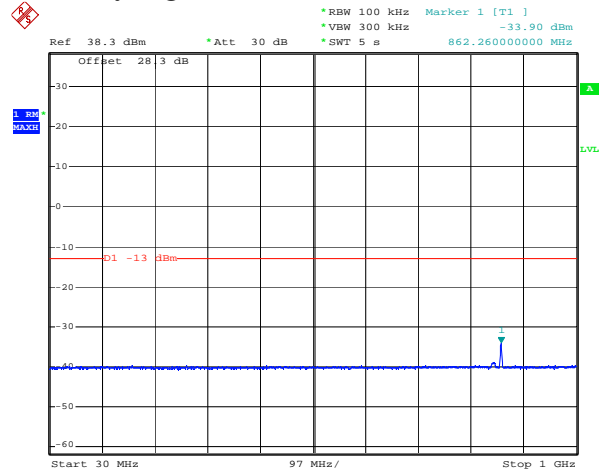


Date: 11.DEC.2007 12:01:39

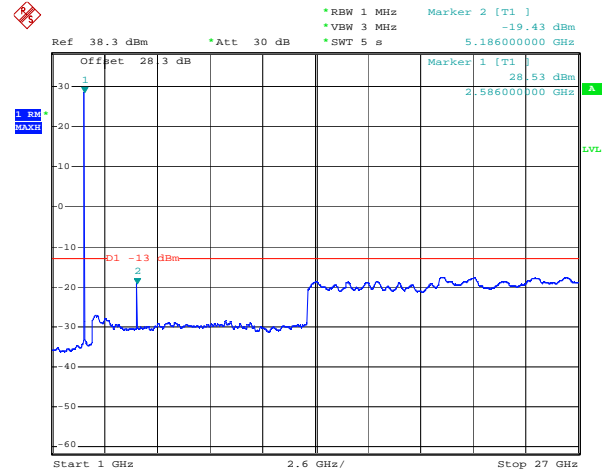


Date: 11.DEC.2007 12:00:54

### Diversity Signal – 2600MHz

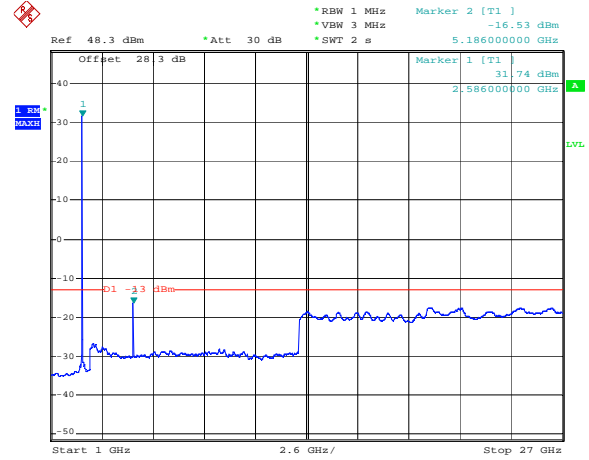
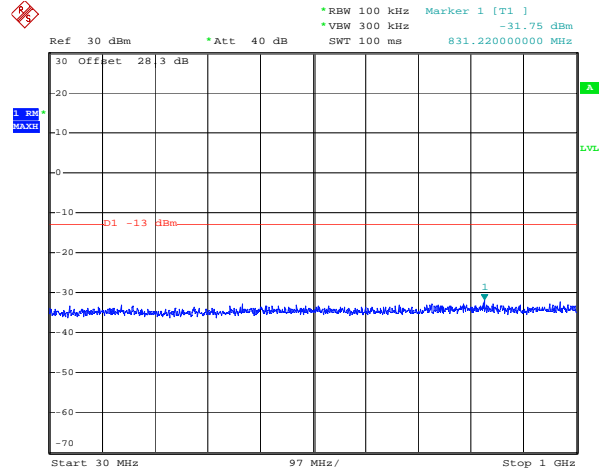


Date: 11.DEC.2007 12:21:52



Date: 11.DEC.2007 12:21:26

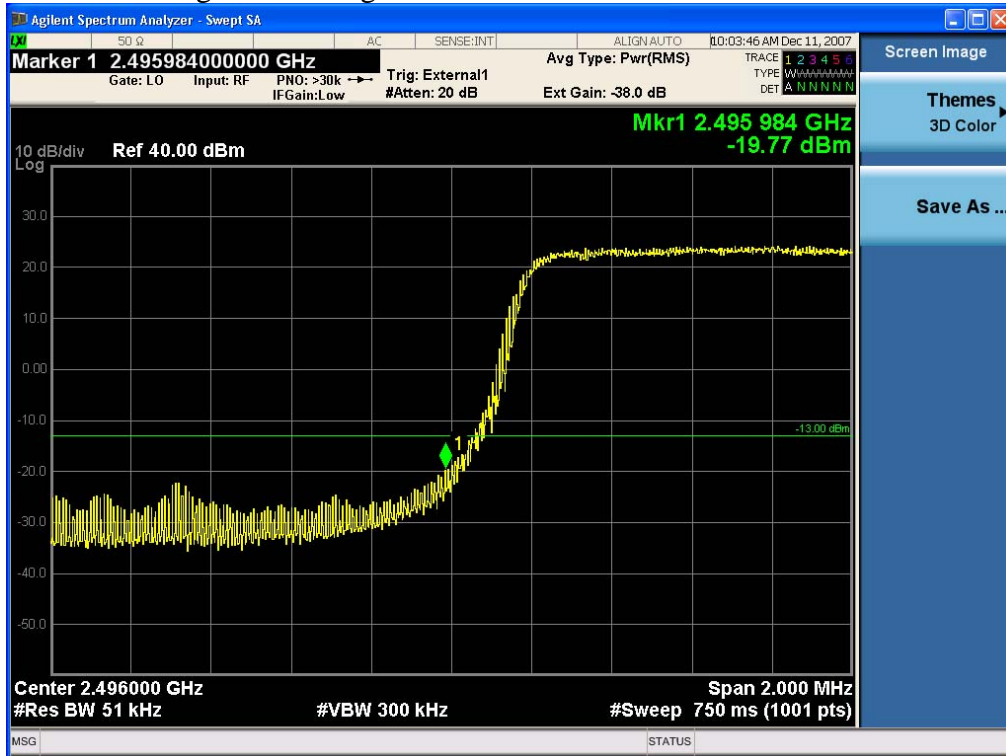
Aggregate Signal – 2600MHz



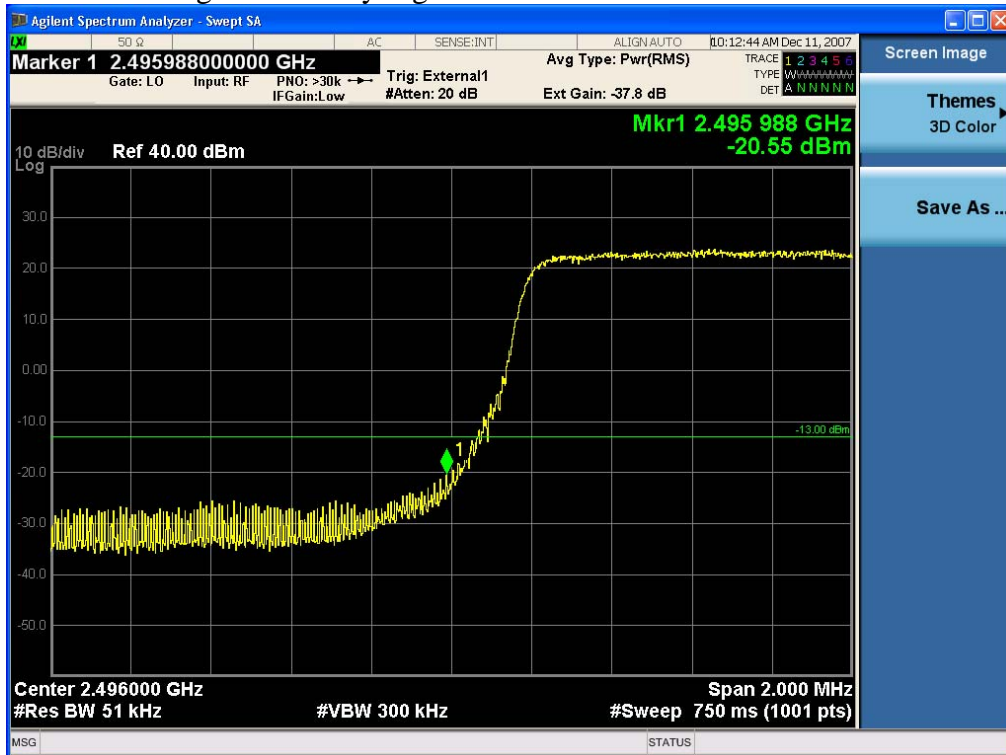
Date: 11.DEC.2007 12:23:30

Date: 11.DEC.2007 12:30:15

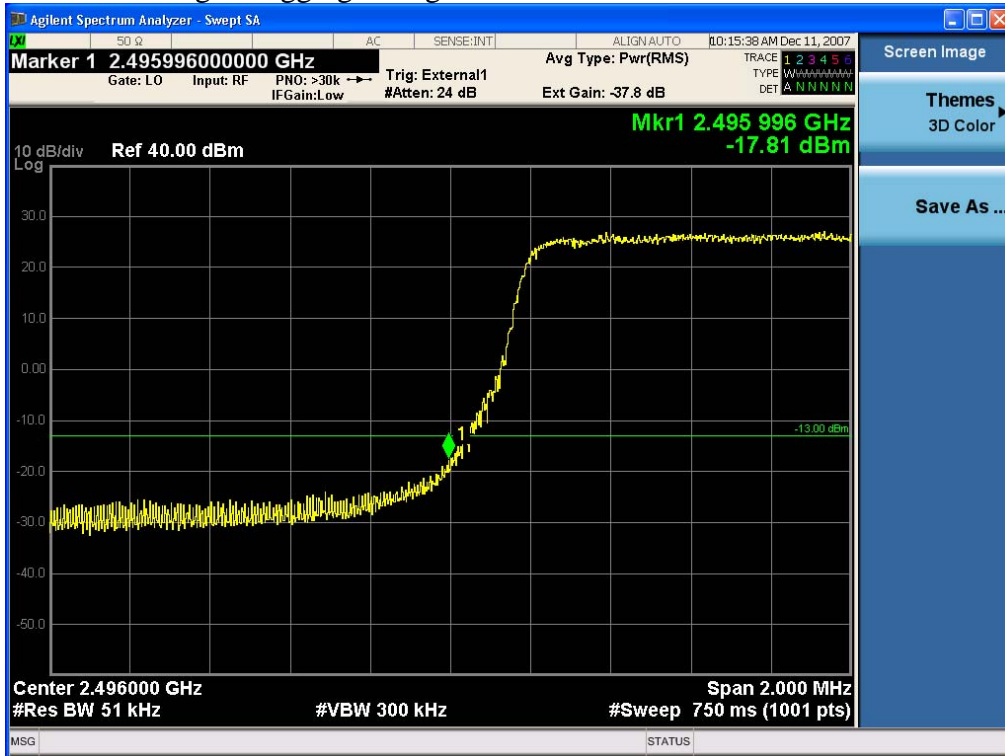
Lower Bandedge – Main Signal



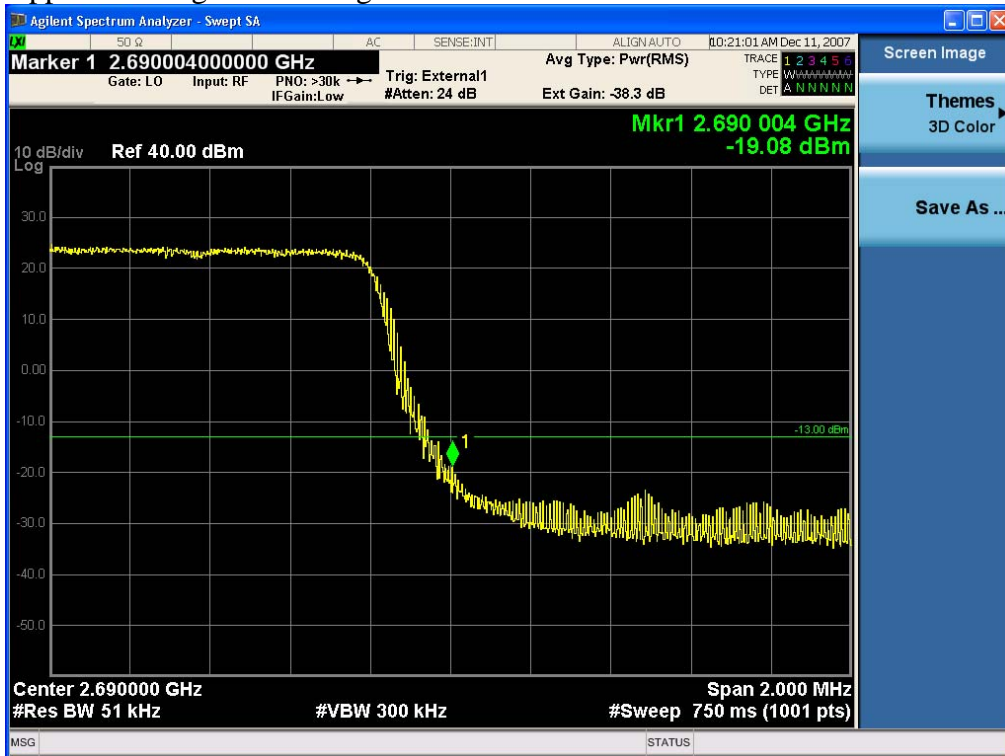
Lower Bandedge – Diversity Signal



Lower Bandedge – Aggregate Signal



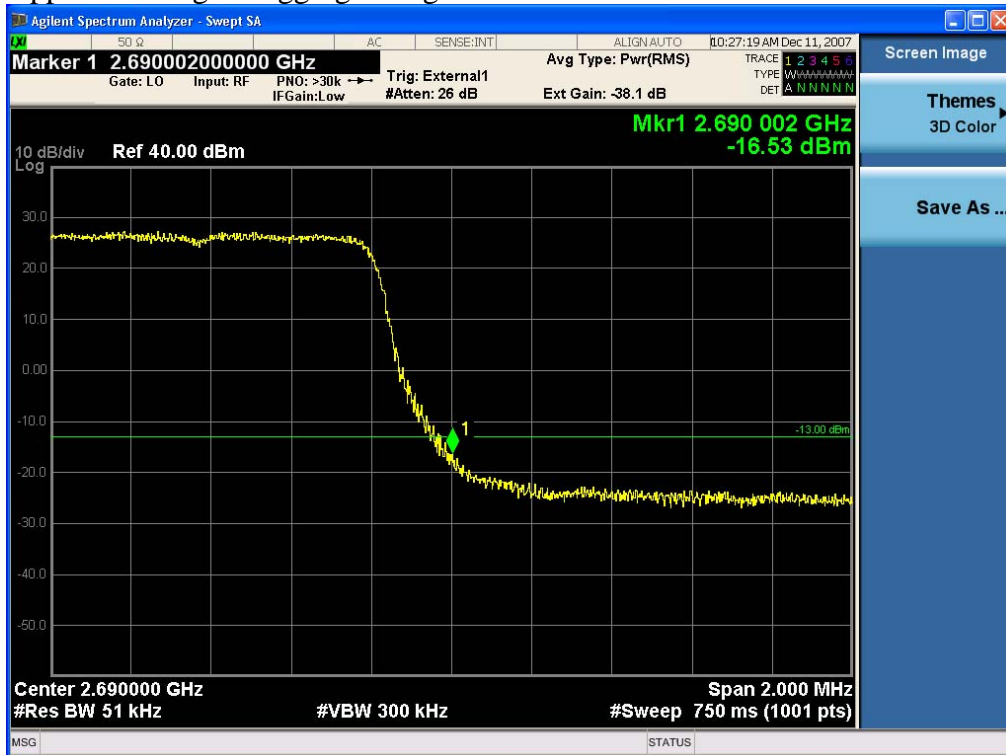
Upper Bandedge – Main Signal



Upper Bandedge – Diversity Signal

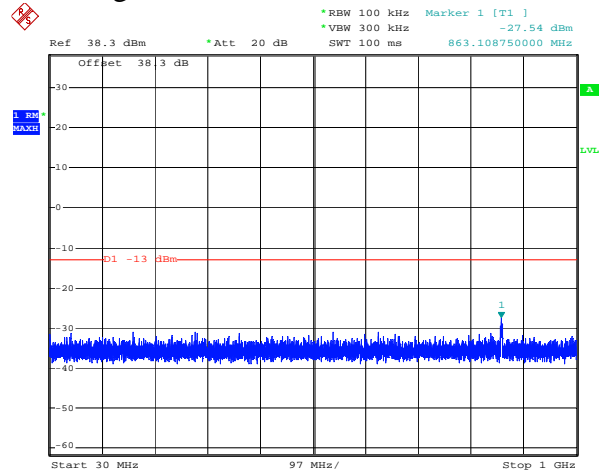


Upper Bandedge – Aggregate Signal

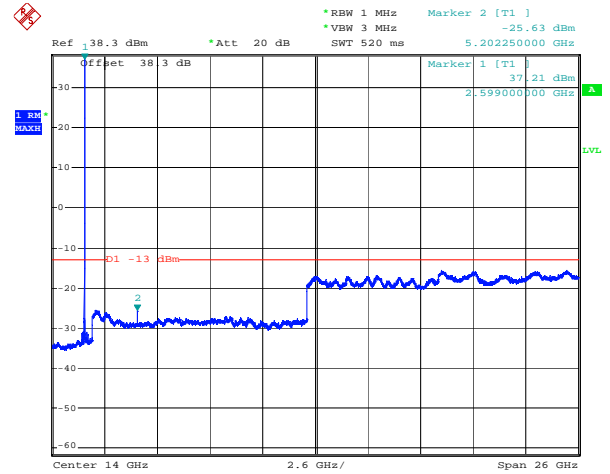


### Conducted Emissions with TTLNA

#### Main Signal – 2600MHz

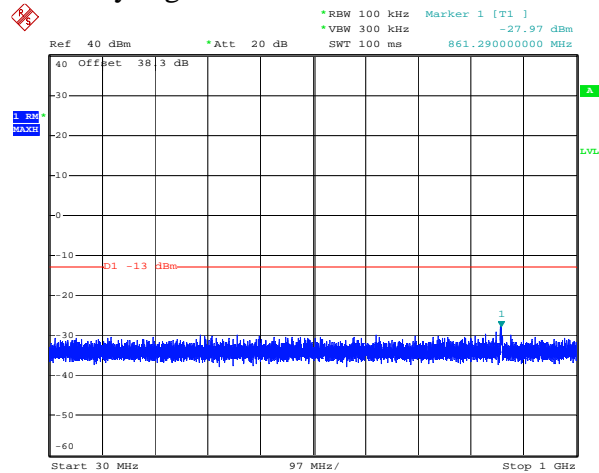


Date: 11.DEC.2007 10:51:36

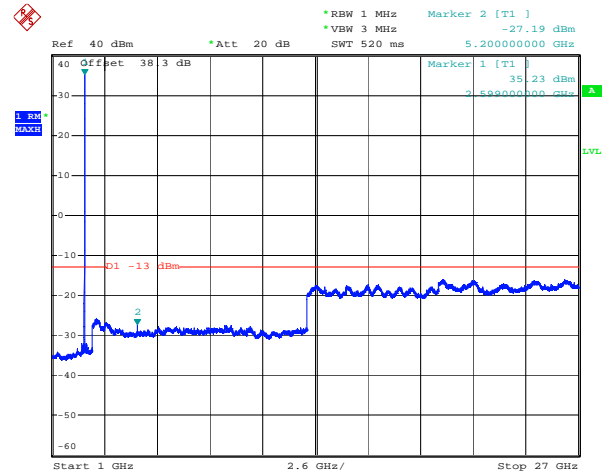


Date: 11.DEC.2007 10:50:50

#### Diversity Signal – 2600MHz

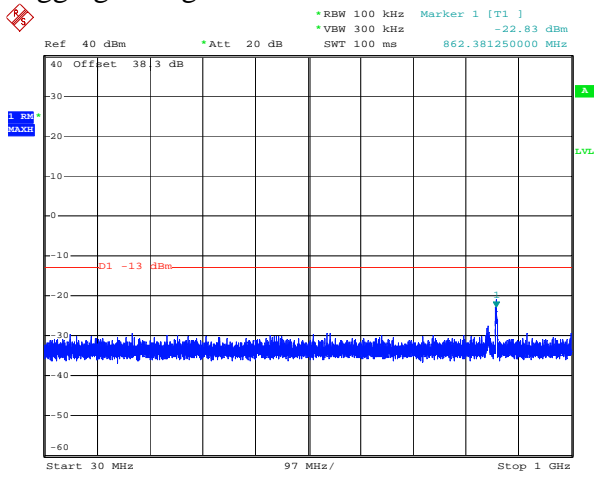


Date: 11.DEC.2007 10:53:31

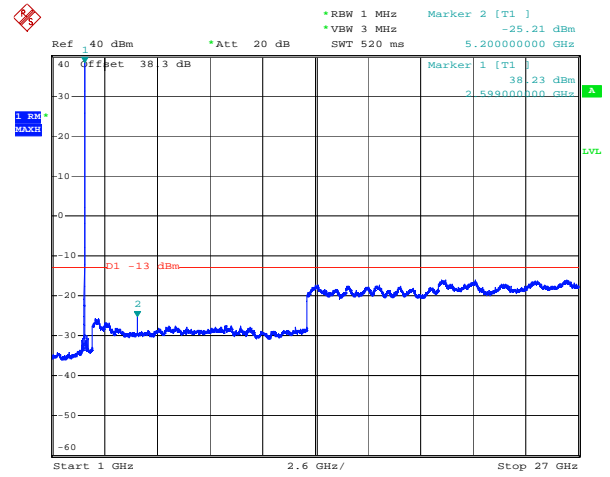


Date: 11.DEC.2007 10:58:24

Aggregate Signal – 2600MHz



Date: 11.DEC.2007 10:56:25



Date: 11.DEC.2007 10:57:22







