

Agenda Item: 8.4

Source: Fujitsu, NEC, NTT DoCoMo, Panasonic(Matsushita)

Title: BS Spectrum Emission Mask

Document for: Information

1. Introduction

BS Spectrum Emission Mask was proposed in Miami, but the proposal[1] is seemed to be very tough requirement.

The measurement data related BS Spectrum Emission Mask are shown.

2. Result of Measurement

The measurement conditions are shown as following.

Chip rate(bit rate) : 3.84Mbps
 Modulation : QPSK
 Roll-off factor : 0.22
 Signal source(generator) : R&S SMIQ

The measurement data is shown as following Fig.1. It shows that ACLR is about 60dB.

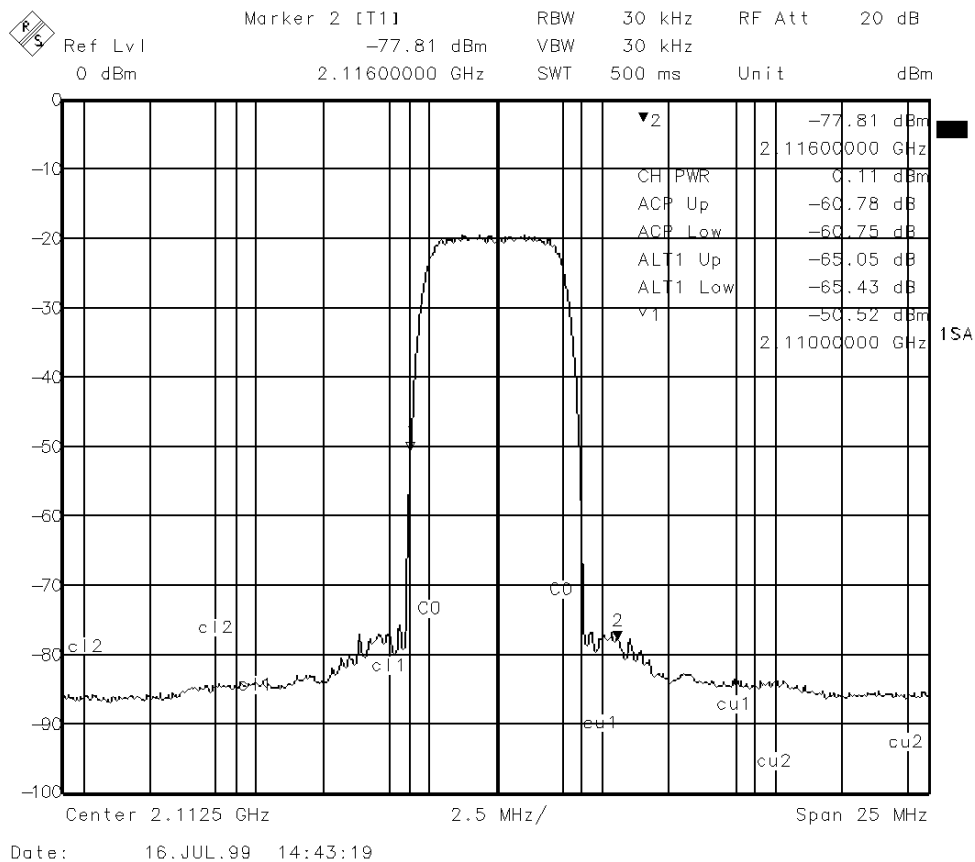


Fig. 1 Result of Spurious Emission

In Fig.1 reference level of 0dBm corresponds to the channel power. Measured power at frequency offset of 2.5MHz can be read from Marker1 as -50dBm/30kHz, which is 50dB lower than channel power. As for 3.5MHz offset point, it can be read from Marker2 as -77dBm/30kHz, which is 77dB lower than channel power.

3. Conclusion

The relation of the requirement based [1] and the measurement data are shown as following table.

frequency offset	Requirement based TSGR4-99340		Measurement Data (Ratio to Channel Power)
	---	Ratio to 20W(43dBm)	
2.5MHz	-15dBm	58dB	50dB
3.5MHz	-28dBm	71dB	77dB

It seems that the requirement of 2.5MHz offset is very tight. And if the requirement of 3.5MHz offset is satisfied, ACLR will be became around 55dB.

Reference

[1] TSGR4-#5(99)340; "Proposed BS Spectrum Emission Mask"