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		1-5-00	PA1	

Measurements on the PC-module

20dB bandwidth plots:

Following 3 plots show the 20dB channel bandwidth at the lowest channel, mid channel and the highest channel.

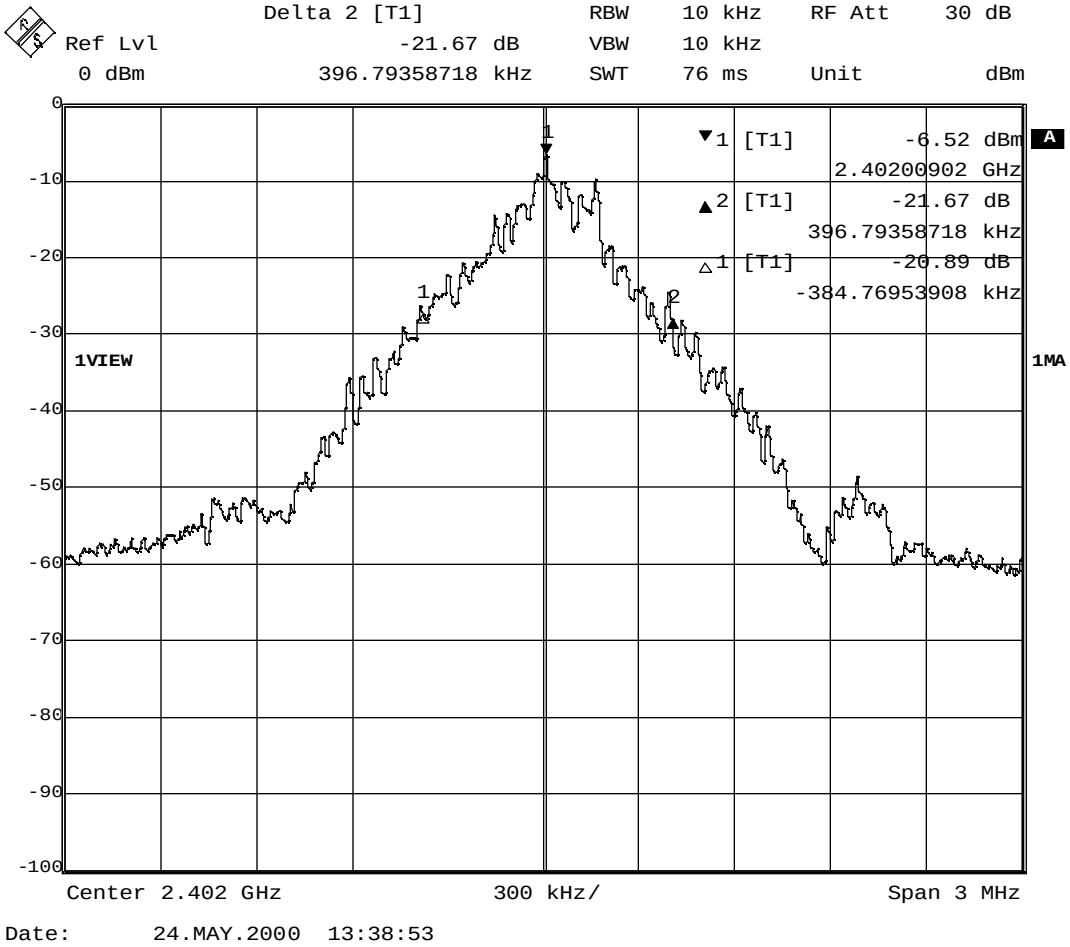

Figure 1: 20 dB bandwidth channel 2 (active mode)

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		1-5-00	PA1	

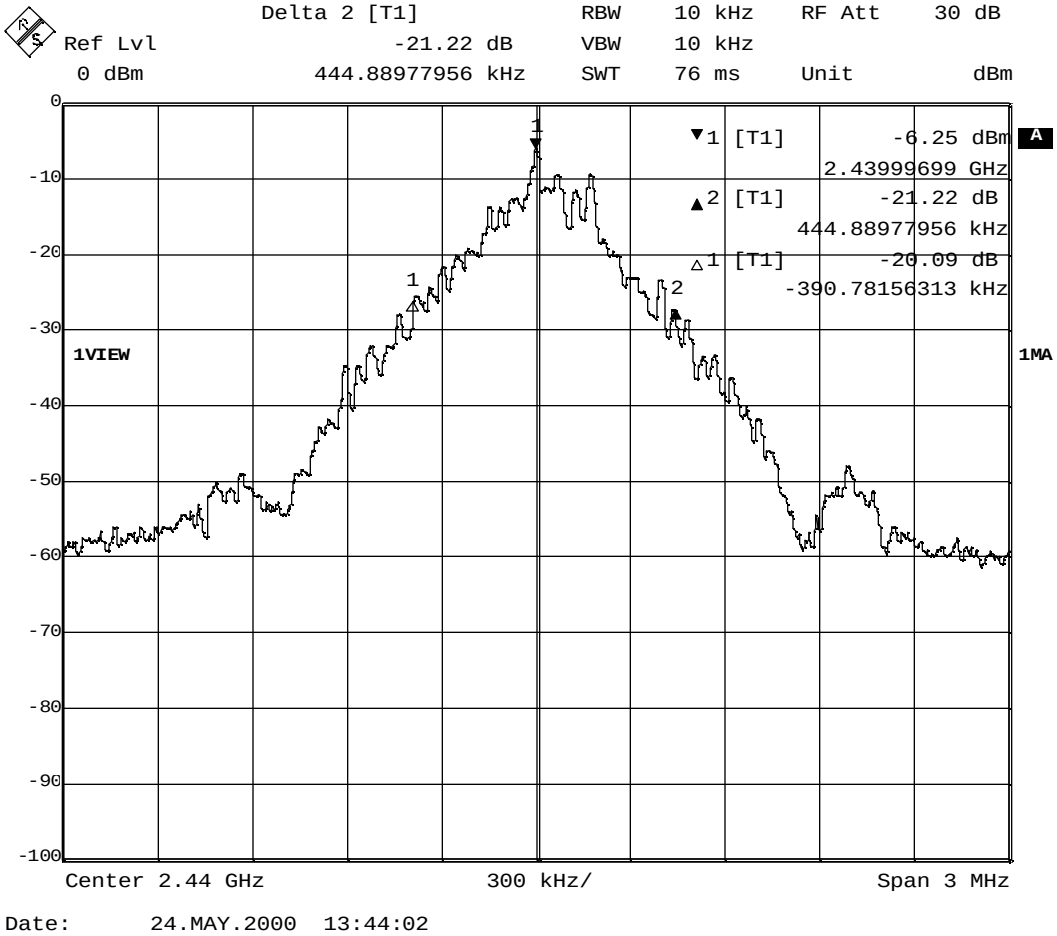

Figure 2: 20 dB bandwidth channel 40 (active mode)

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EMN/ERH/TG R.H. Linde		Uen		
Approved	Checked	Date	Rev	Reference
		1-5-00	PA1	

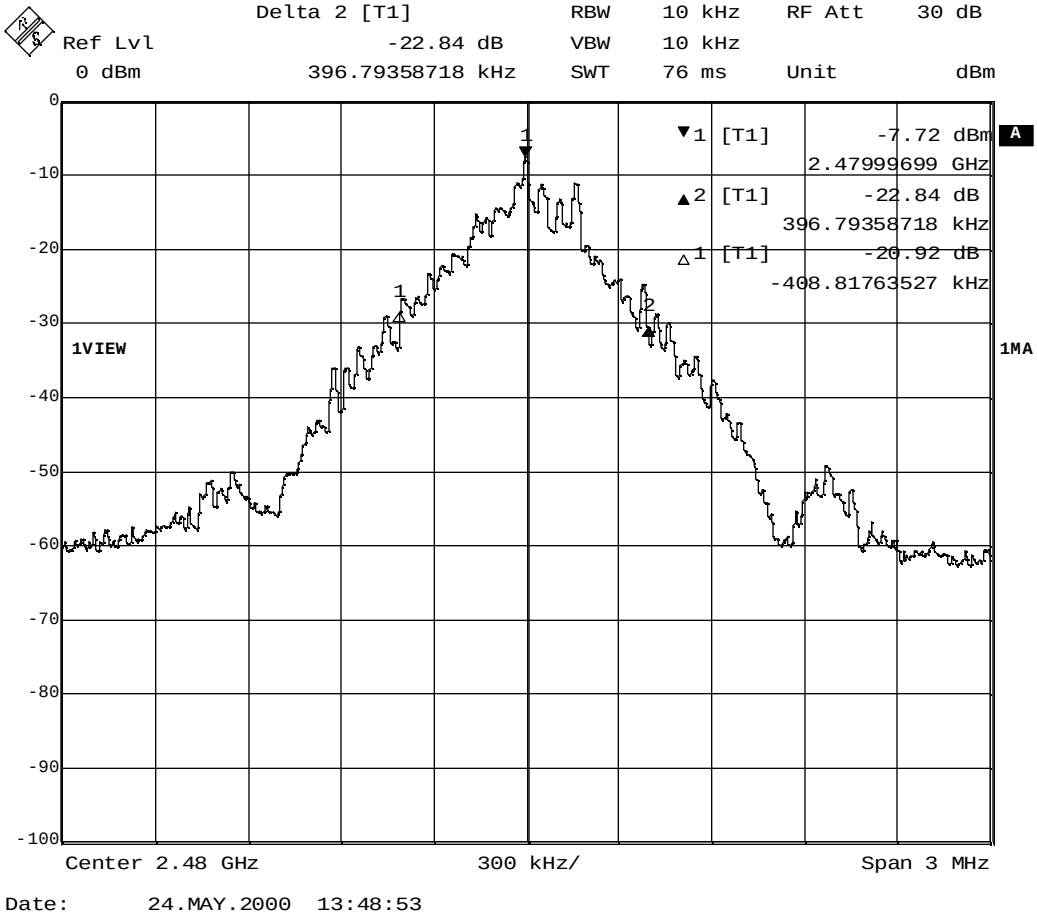

Figure 3: 20 dB bandwidth channel 80 (active mode)

Dwell time plots

To show the dwell times 3 plots are made for both page mode and inquiry mode. The 13 second time frame shows the number of blocks of activity on a channel. The 100ms plot shows the number of multiple transmissions in one block. The 300us plot shows the time period of one transmission. From these plots it is easy to derive that the dwell time is within the FCC requirements.

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Page mode:

There are 5 blocks of 1.28 sec in the first plot (figure 4). In the plot of figure 5 it can be seen that every 10 msec there is a transmission. That means that in the time of 12.8 sec there are 5 (blocks)* 128 (transmissions per block) = 640 transmissions.
Every transmission lasts 182 usec. (see figure 6) So the active time on a channel is: 640*182u = 116.5 ms. This is well within the spec of 400msec max.

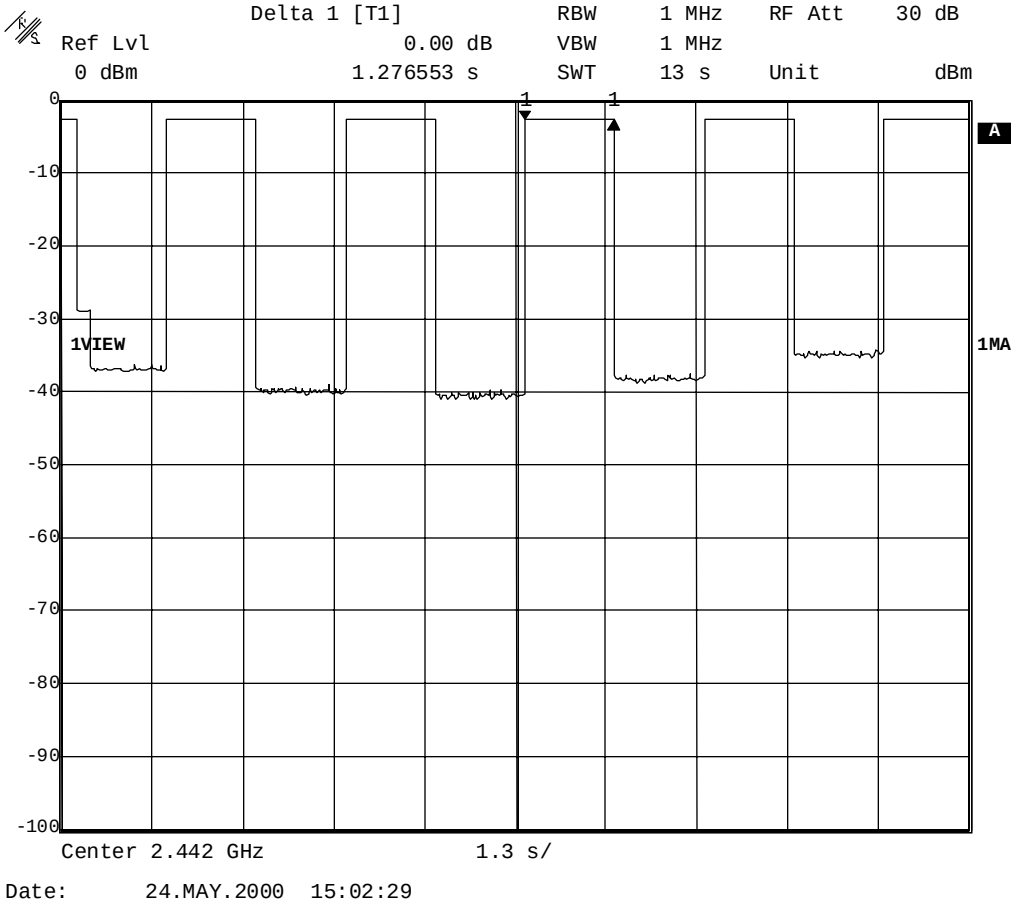

Figure 4: 13 second plot of activity on one channel in page mode

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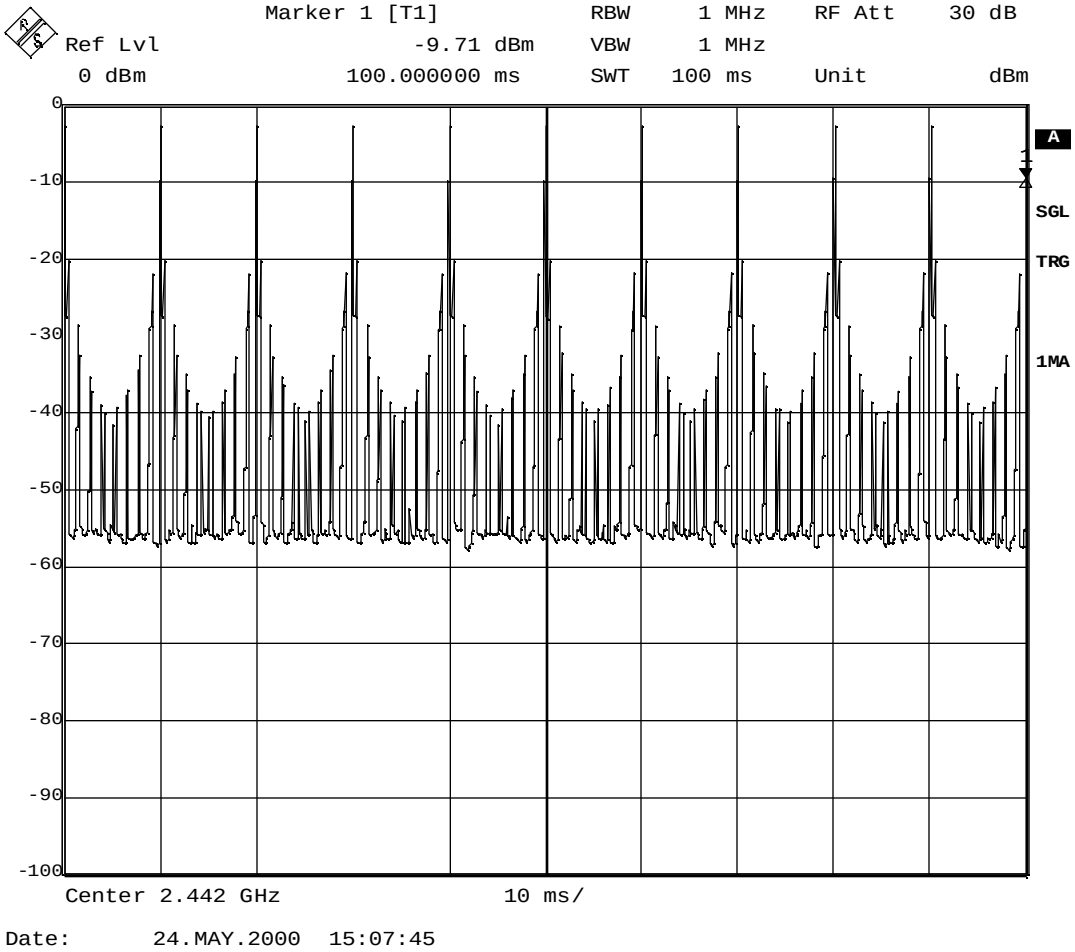

Figure 5: 100 millisecond plot of activity on one channel in page mode

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EMN/ERH/TG R.H. Linde		Uen		
Approved	Checked	Date	Rev	Reference
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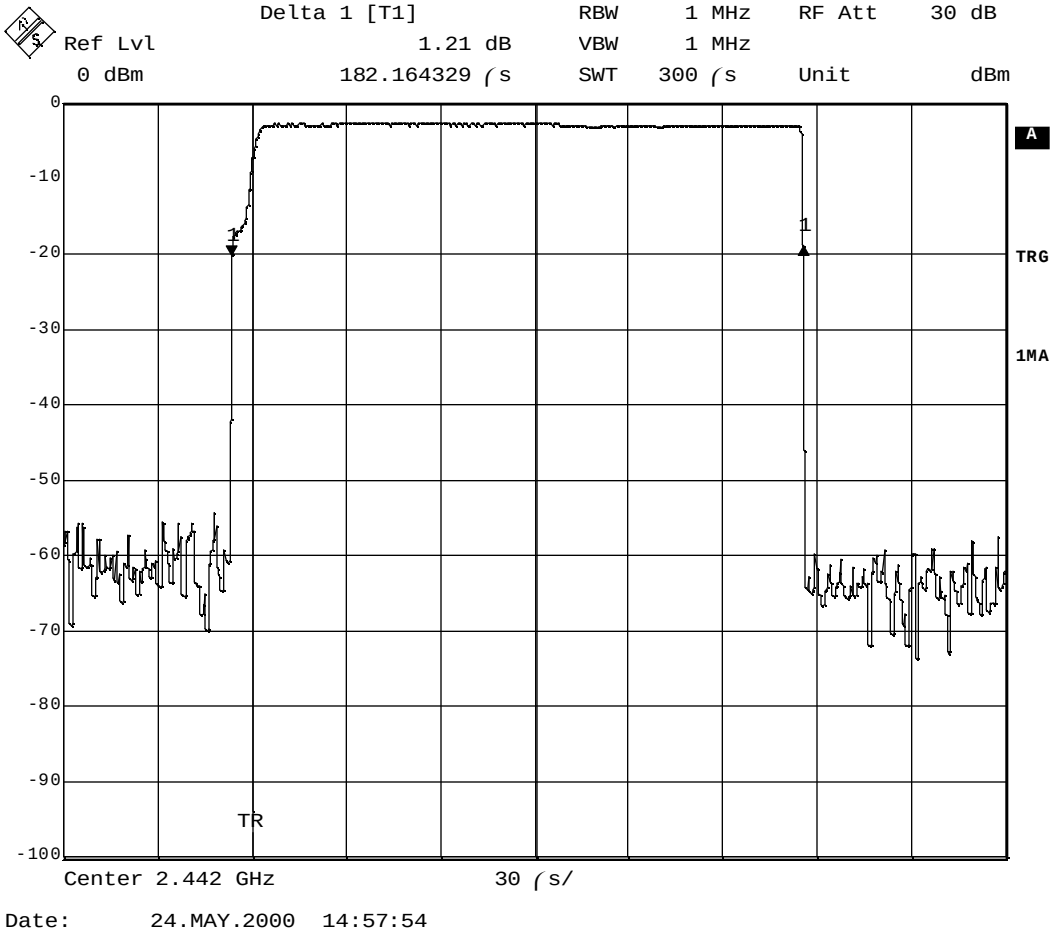

Figure 6: 300 microsecond plot of activity on one channel in page mode

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Inquiry mode:

There are 2 blocks of 2.56 sec in the first plot (figure 7). In the plot of figure 8 it can be seen that every 10 msec there is a transmission. That means that in the time of 12.8 sec there are 2 (blocks)* 256 (transmissions per block) = 512 transmissions.
Every transmission lasts 182 usec. (figure 9) So the active time on a channel is: 512*182u = 98.3 ms. This is well within the spec of 400msec max.

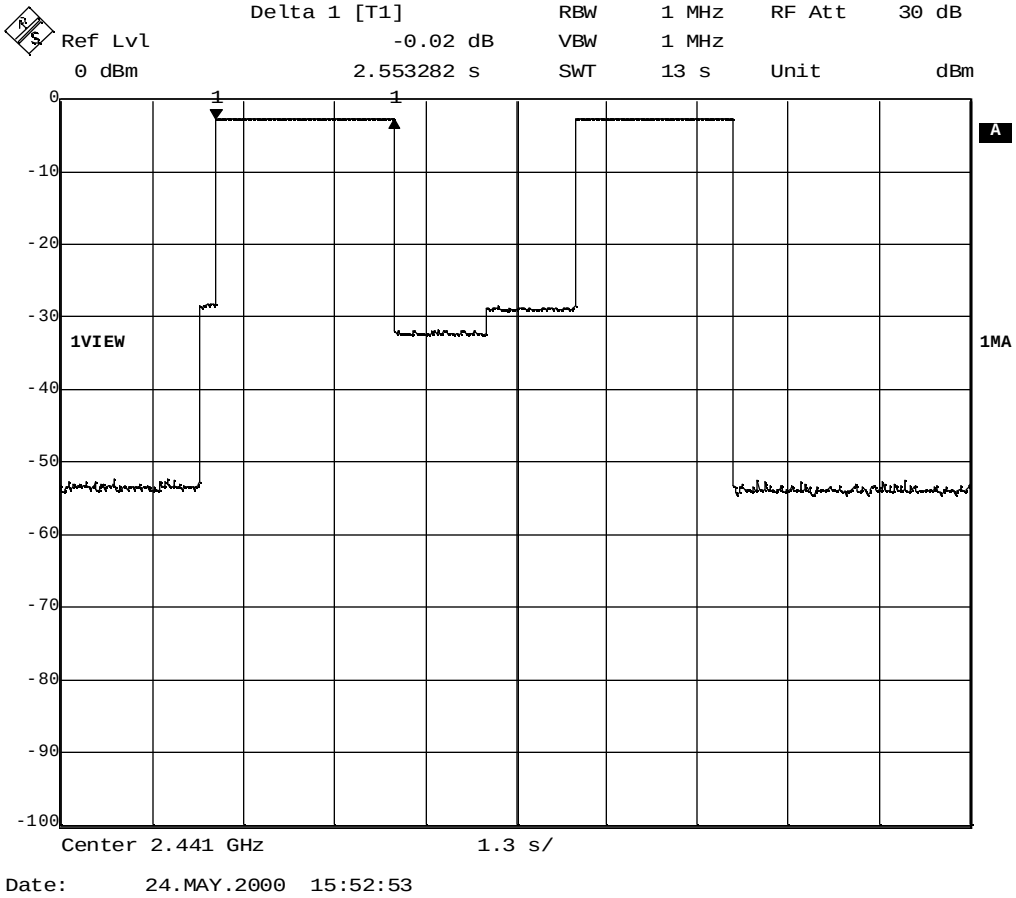

Figure 7: 13 second plot of activity on one channel in inquiry mode

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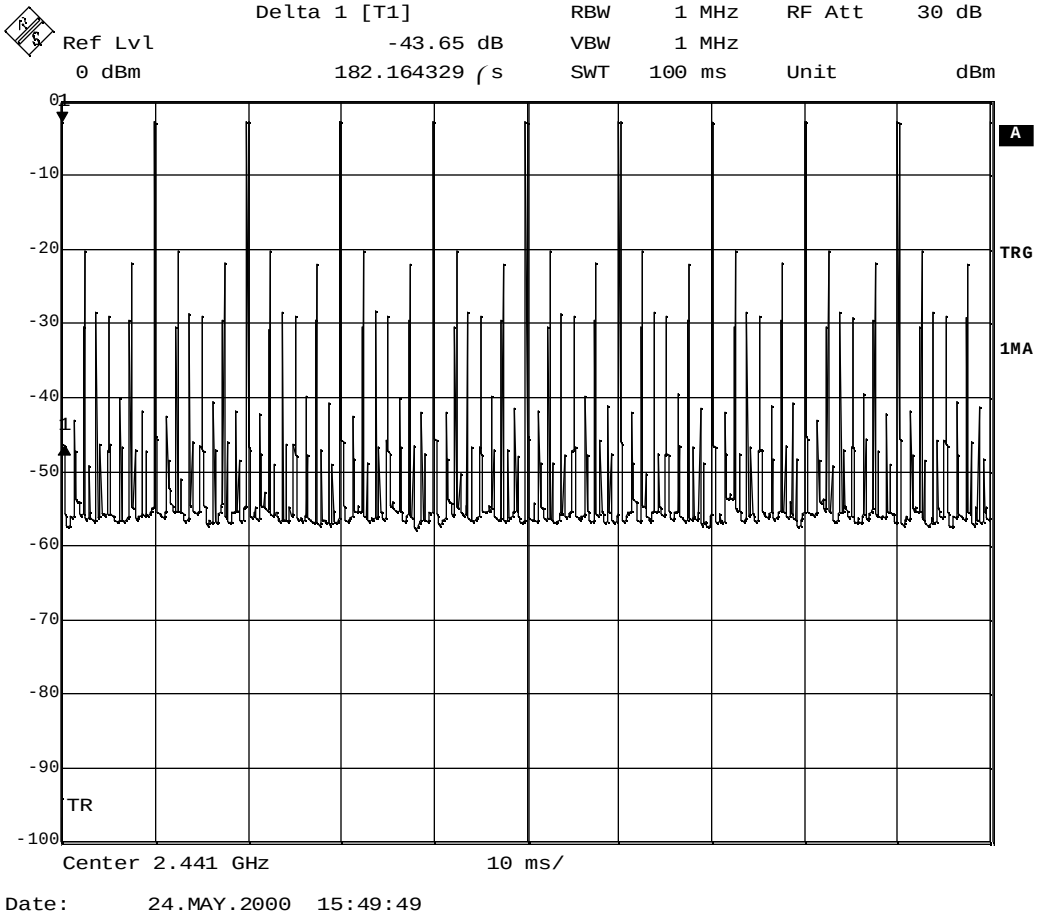

Figure 8: 100 millisecond plot of activity on one channel in inquiry mode

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EMN/ERH/TG R.H. Linde		Uen		
Approved	Checked	Date	Rev	Reference
		1-5-00	PA1	

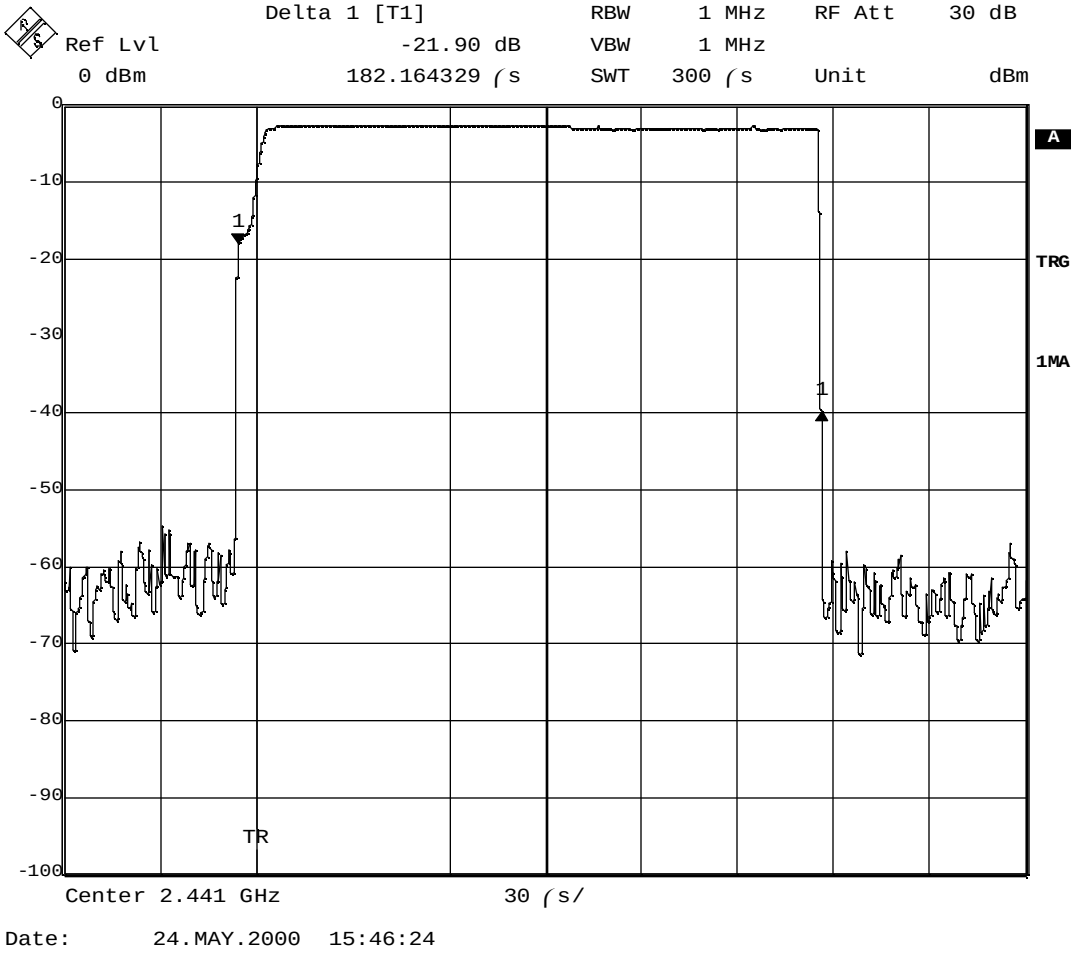

Figure 9: 300 microsecond plot of activity on one channel in inquiry mode

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Approved	Checked	Date	Rev	Reference
		1-5-00	PA1	

Power density plot

The plots are given on the following figures of the power density in page and inquiry mode:

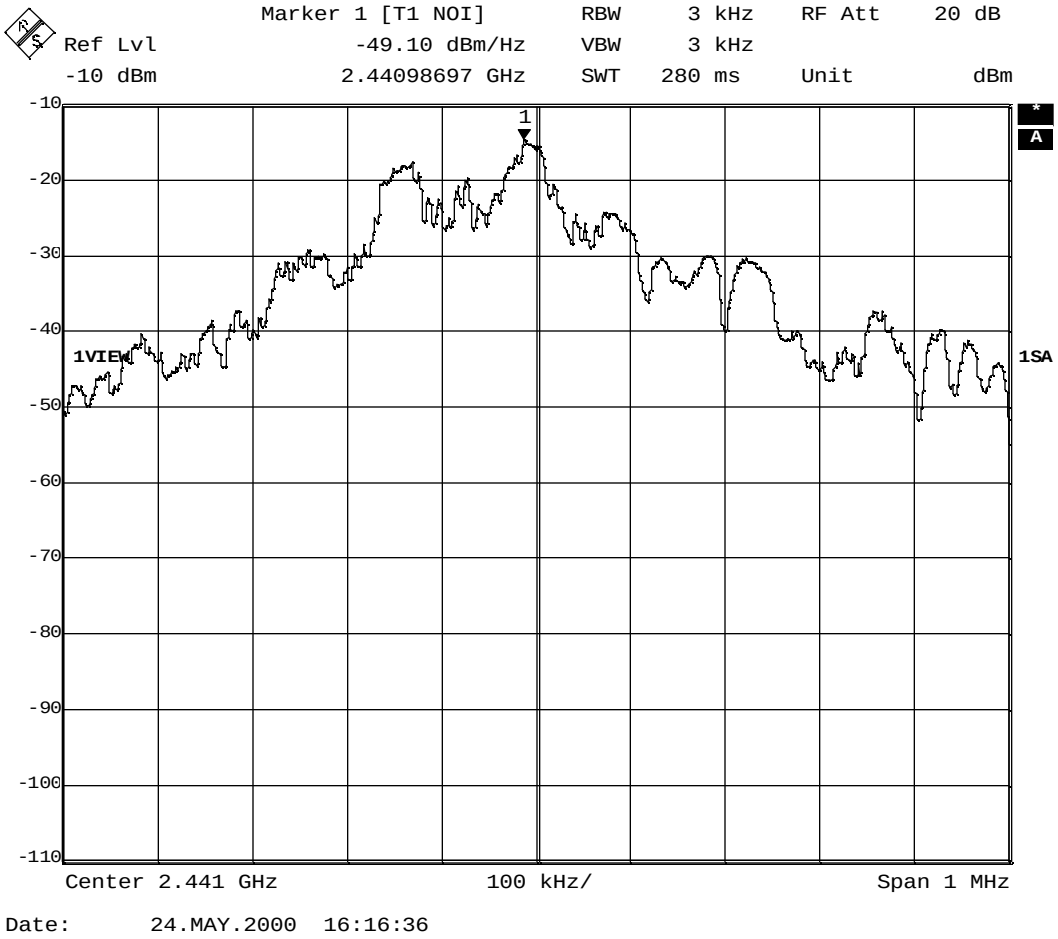

Figure 10: power density in page mode

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EMN/ERH/TG R.H. Linde		Uen		
Approved	Checked	Date	Rev	Reference
		1-5-00	PA1	

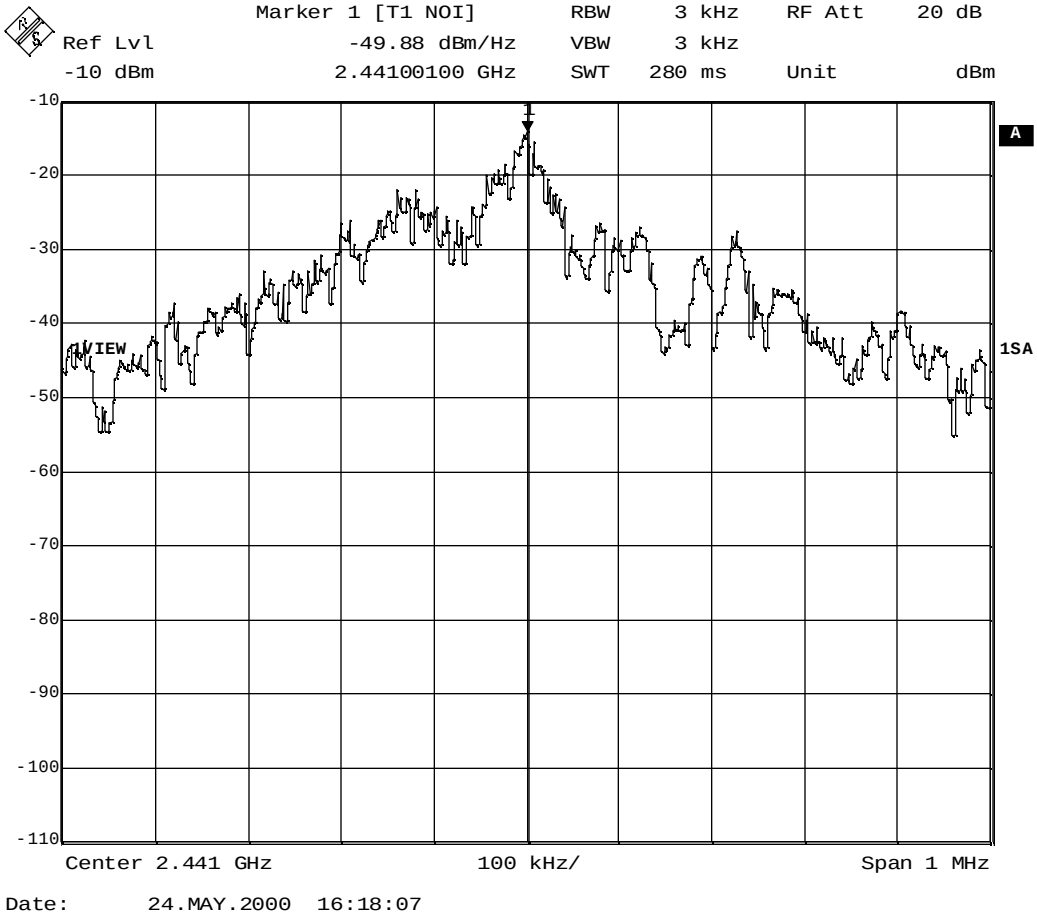

Figure 11: power density in inquiry mode

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EMN/ERH/TG R.H. Linde		Uen		
Approved	Checked	Date	Rev	Reference
		1-5-00	PA1	

Plots FCC 20 dB bandwidth in page and inquiry modes

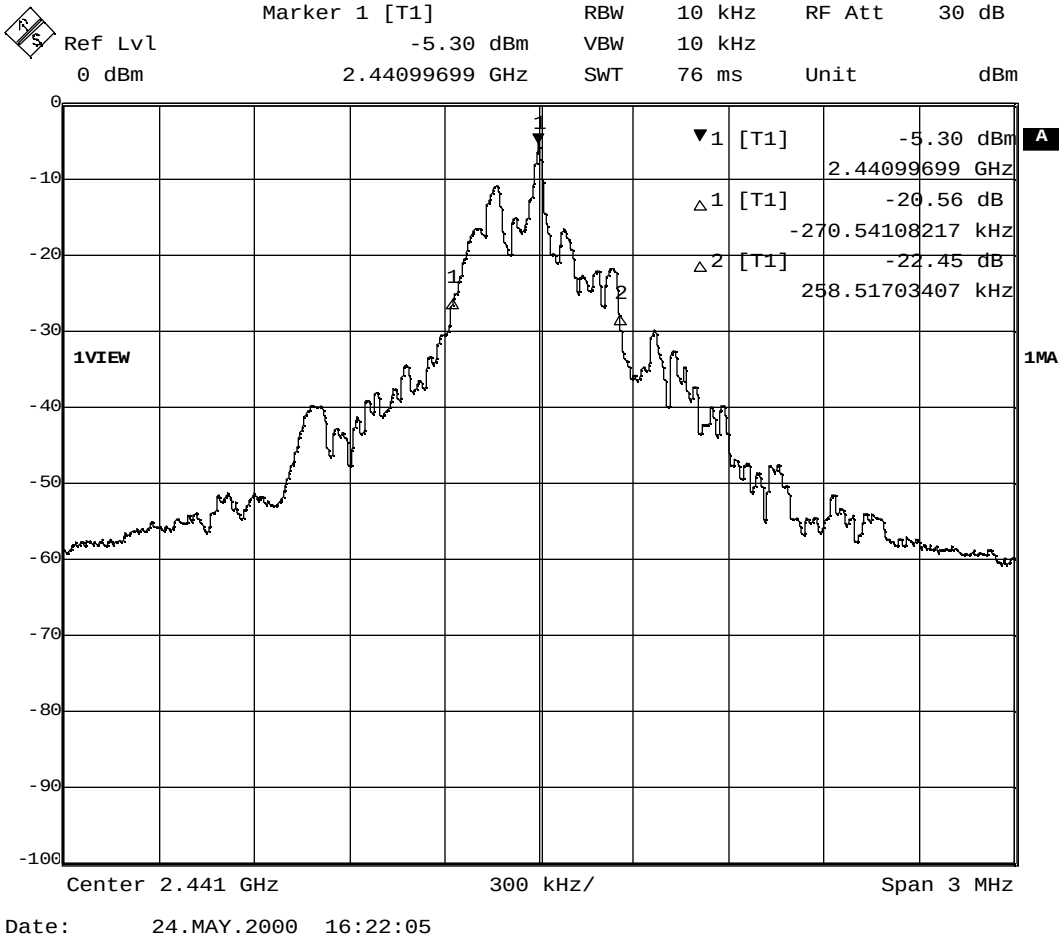

Figure 12: FCC 20 dB bandwidth in page mode

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EMN/ERH/TG R.H. Linde		Uen		
Approved	Checked	Date	Rev	Reference
		1-5-00	PA1	

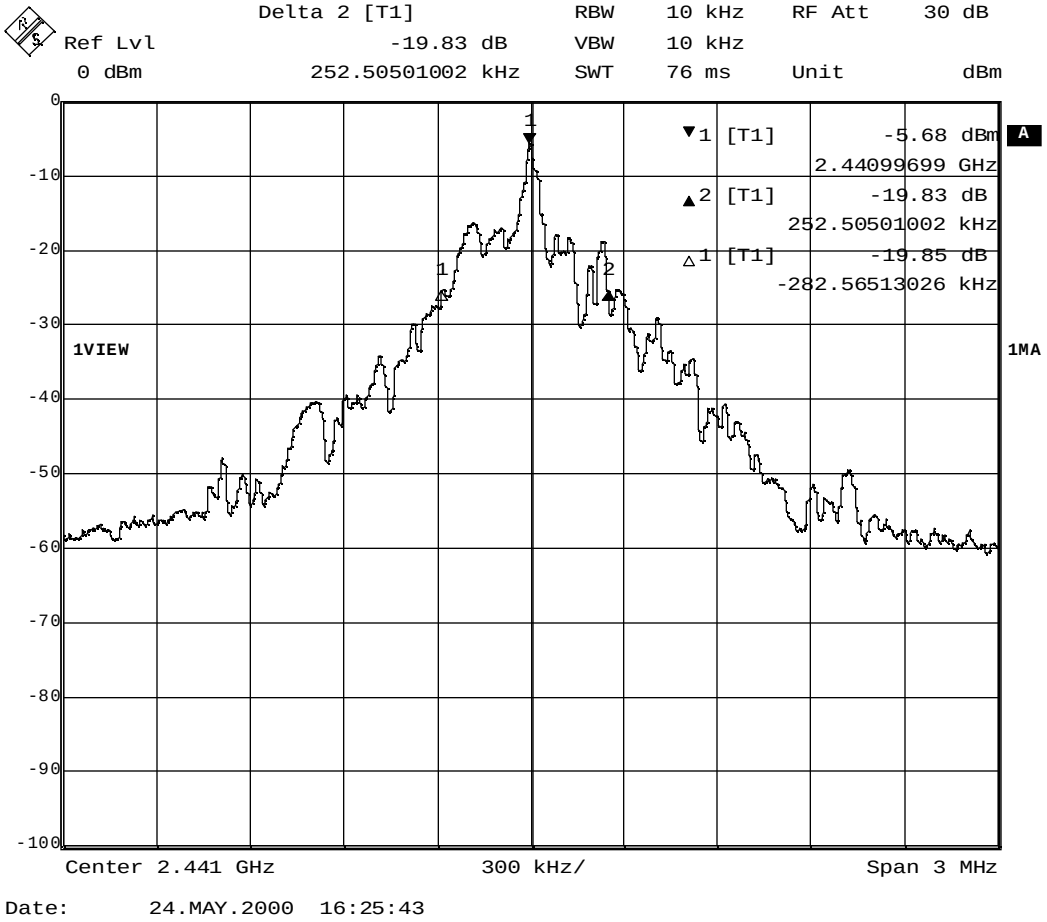

Figure 13: FCC 20 dB bandwidth in inquiry mode