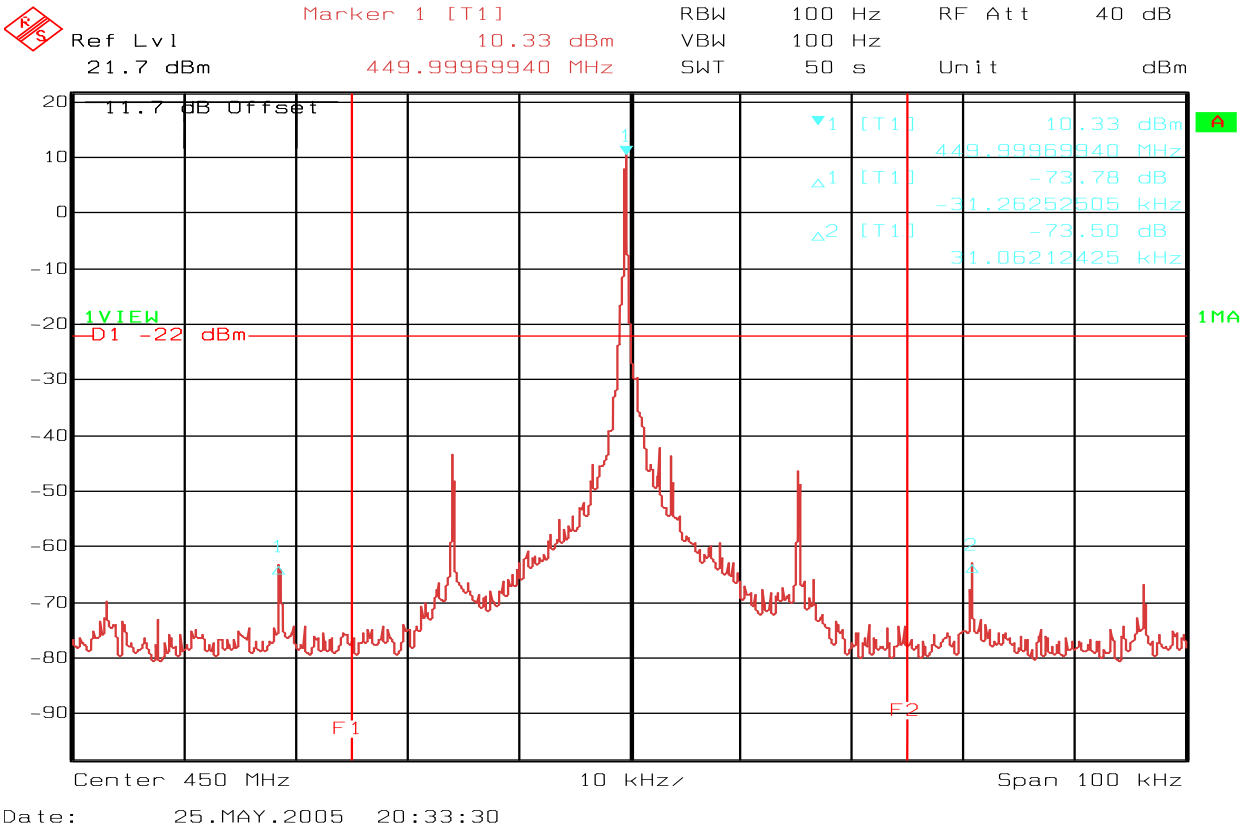
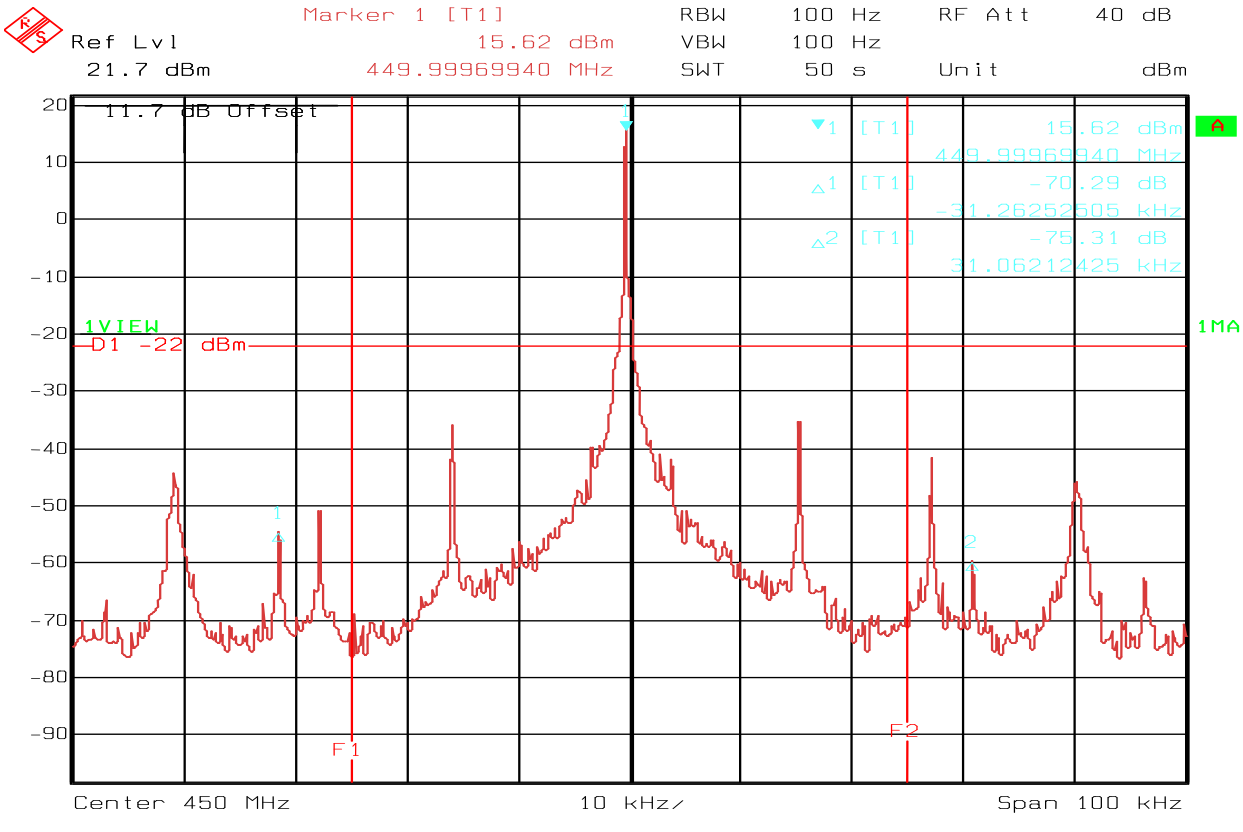
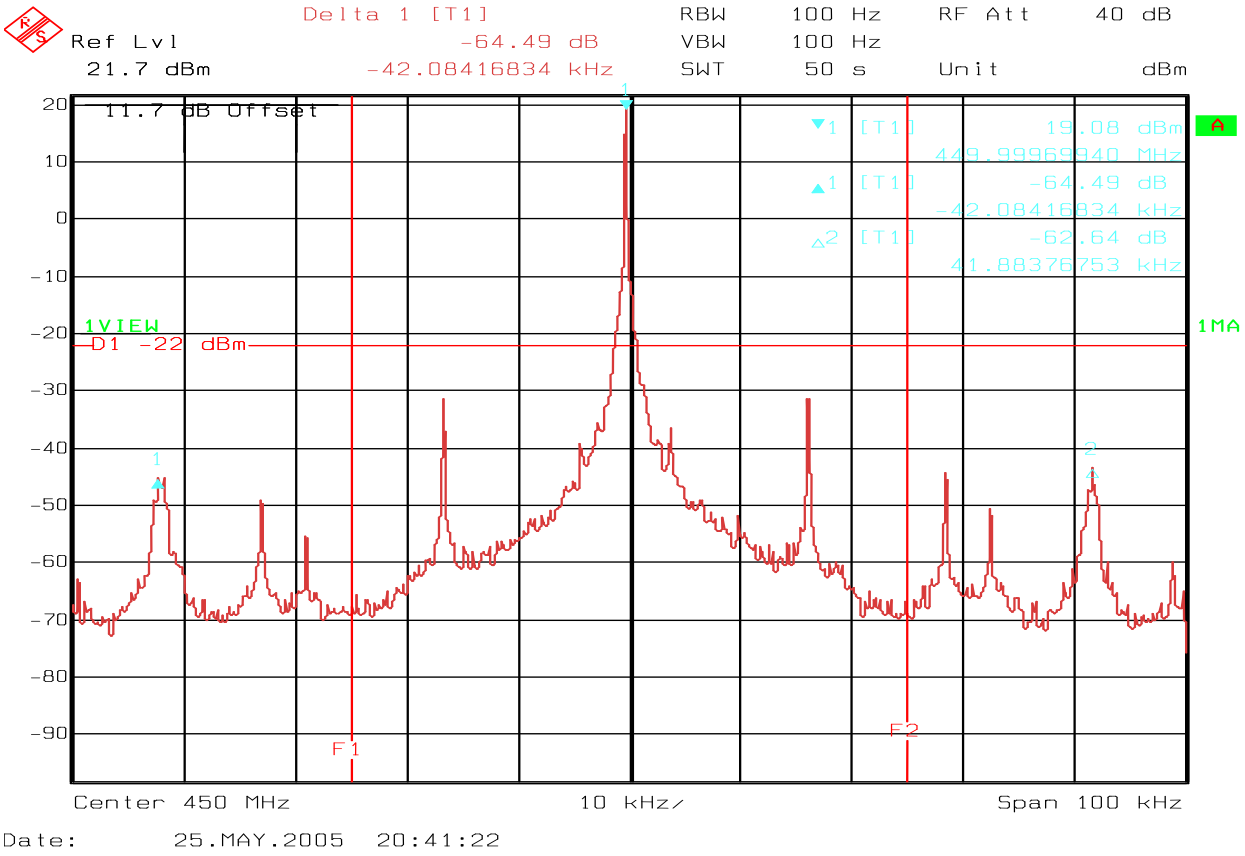


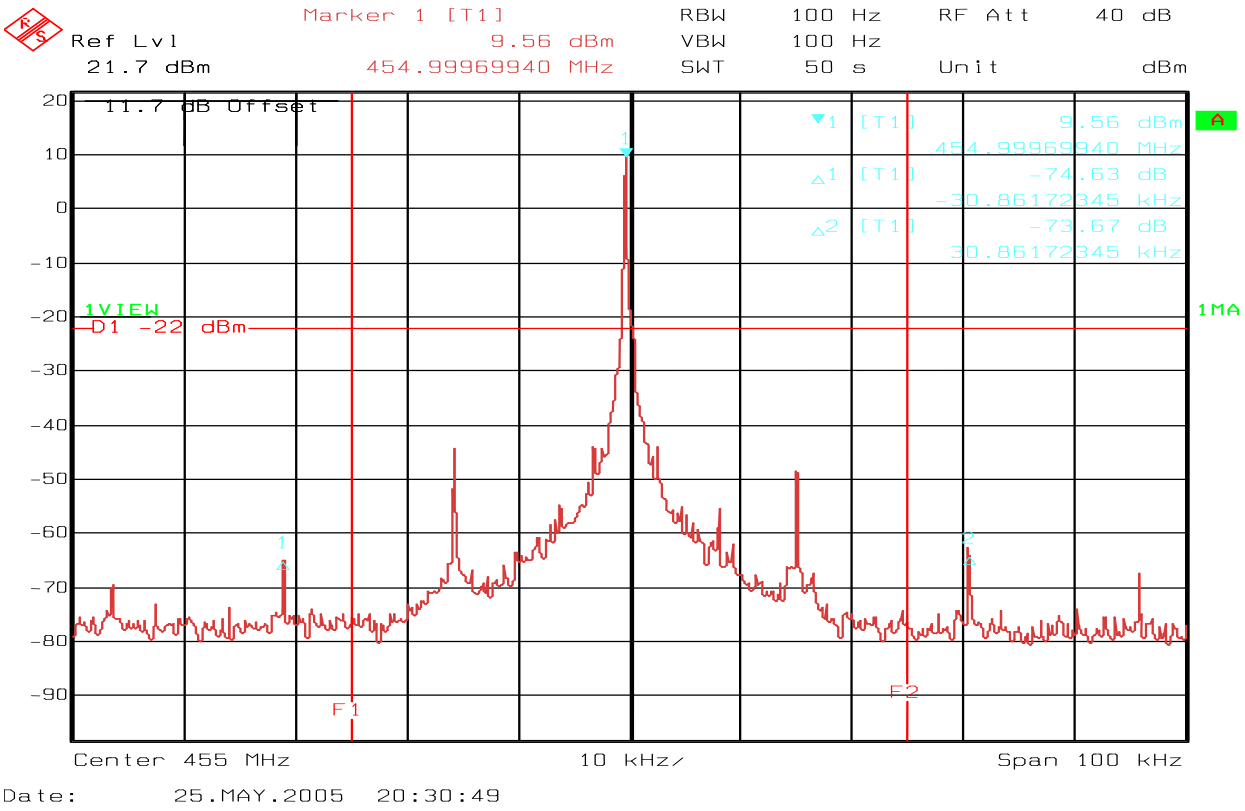
FCC1 - 60 ºC , 6.0Vdc - Lower frequency 450MHz - conducted power +10.33 dBm



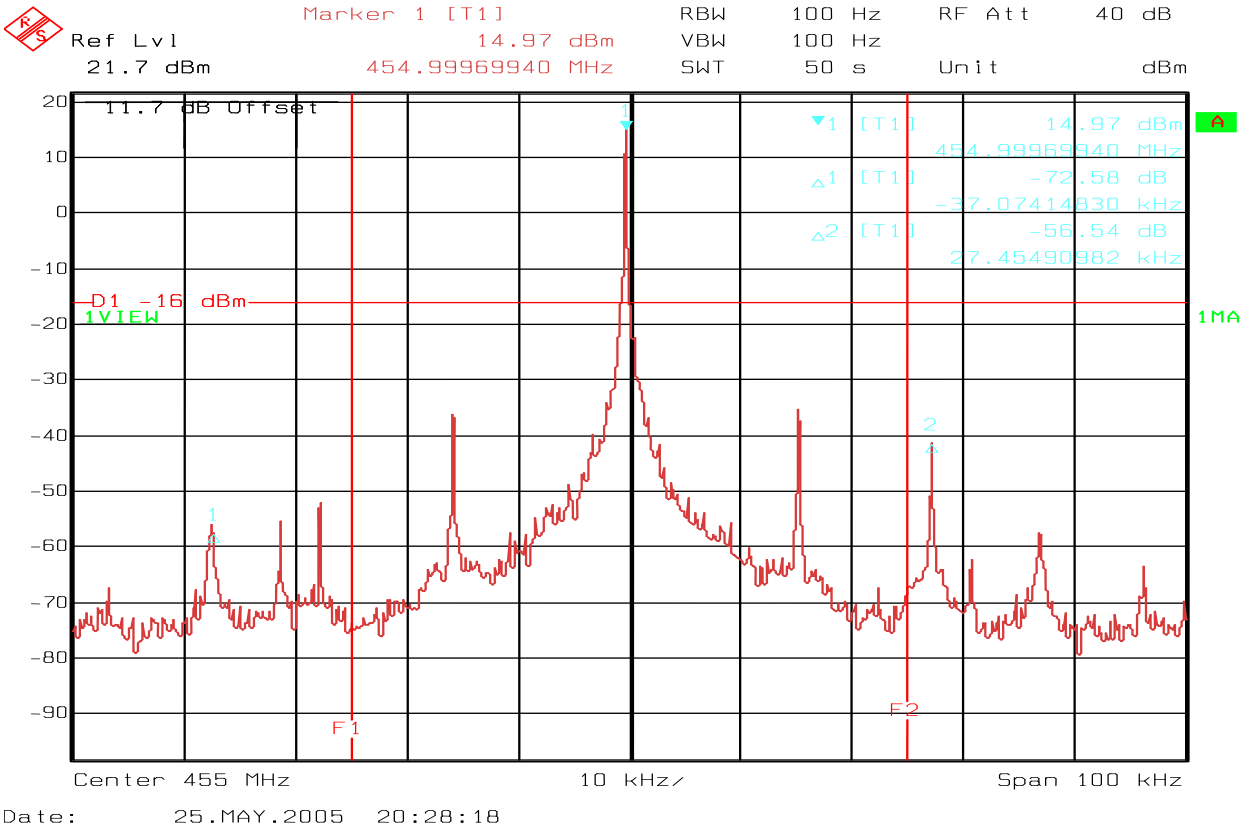
FCC1 - 60 ºC , 7.2Vdc - Lower frequency 450MHz - conducted power +15.62 dBm



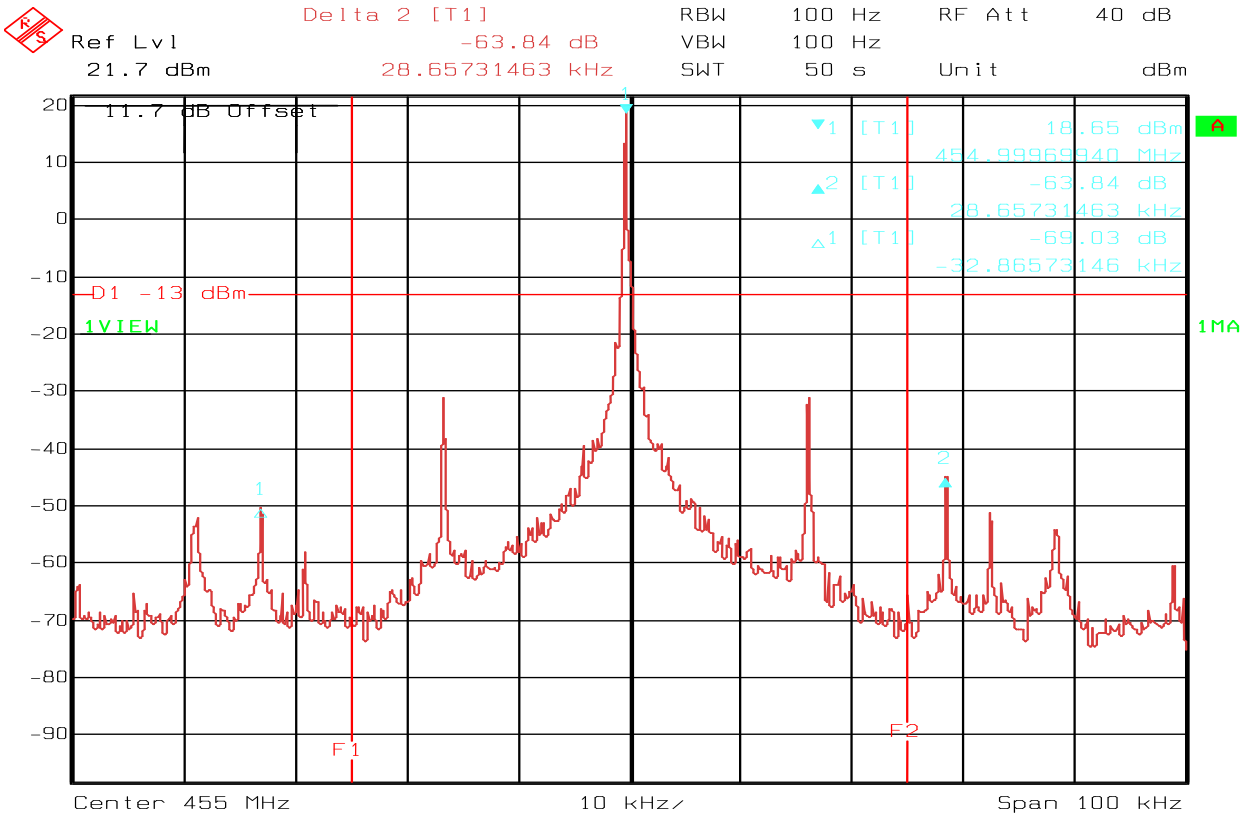
FCC1 - 60 °C , 9.1Vdc - Lower frequency 450MHz - conducted power +19.08 dBm



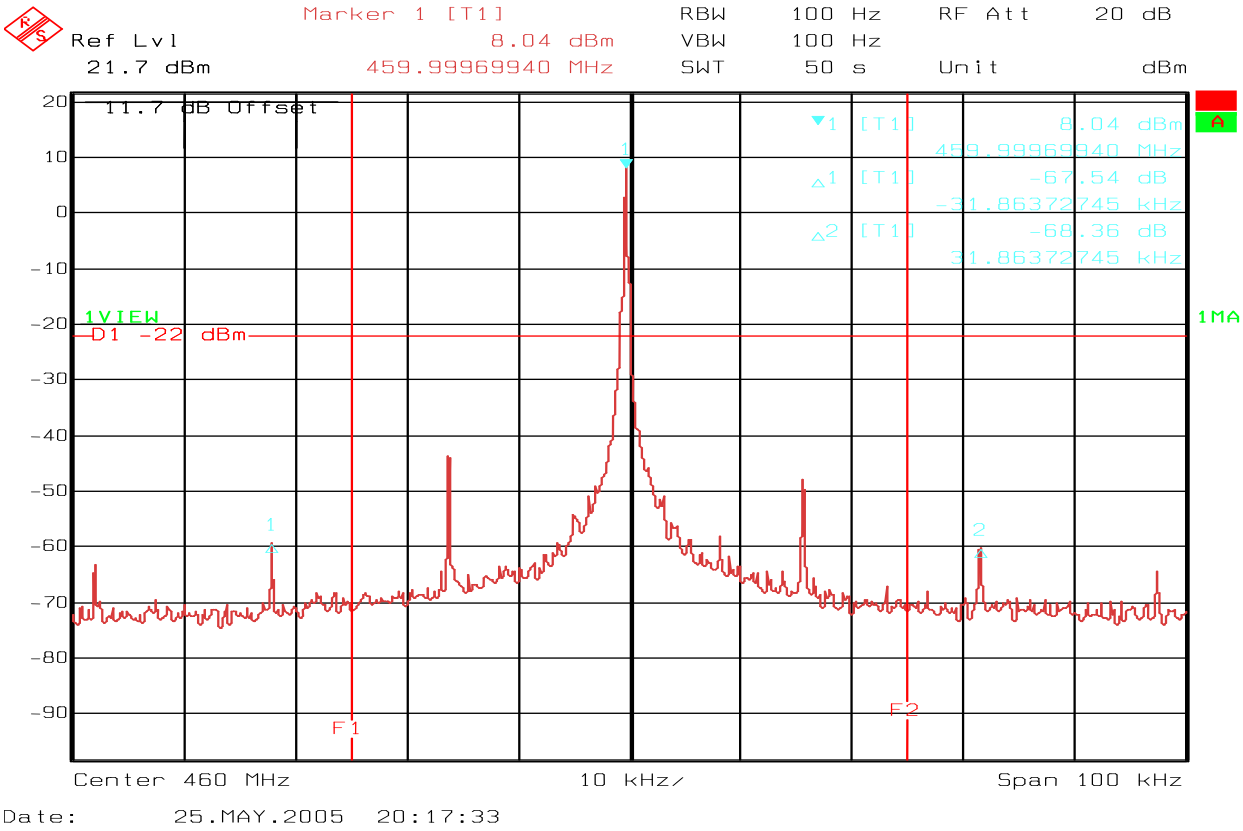
FCC1 - 60 °C , 6.0Vdc - Middle frequency 455MHz - conducted power +9.58 dBm



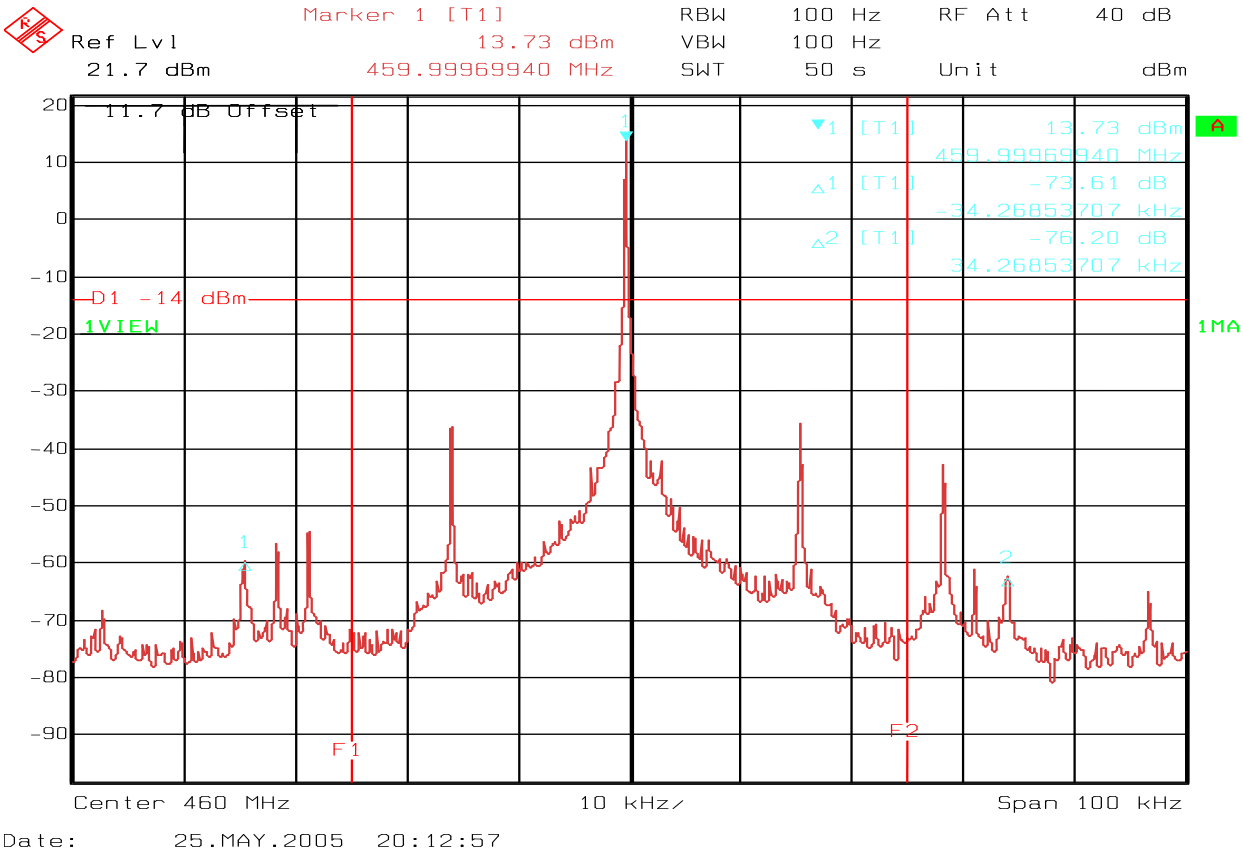
FCC1 - 60 °C , 7.2Vdc - Middle frequency 455MHz - conducted power +14.97 dBm



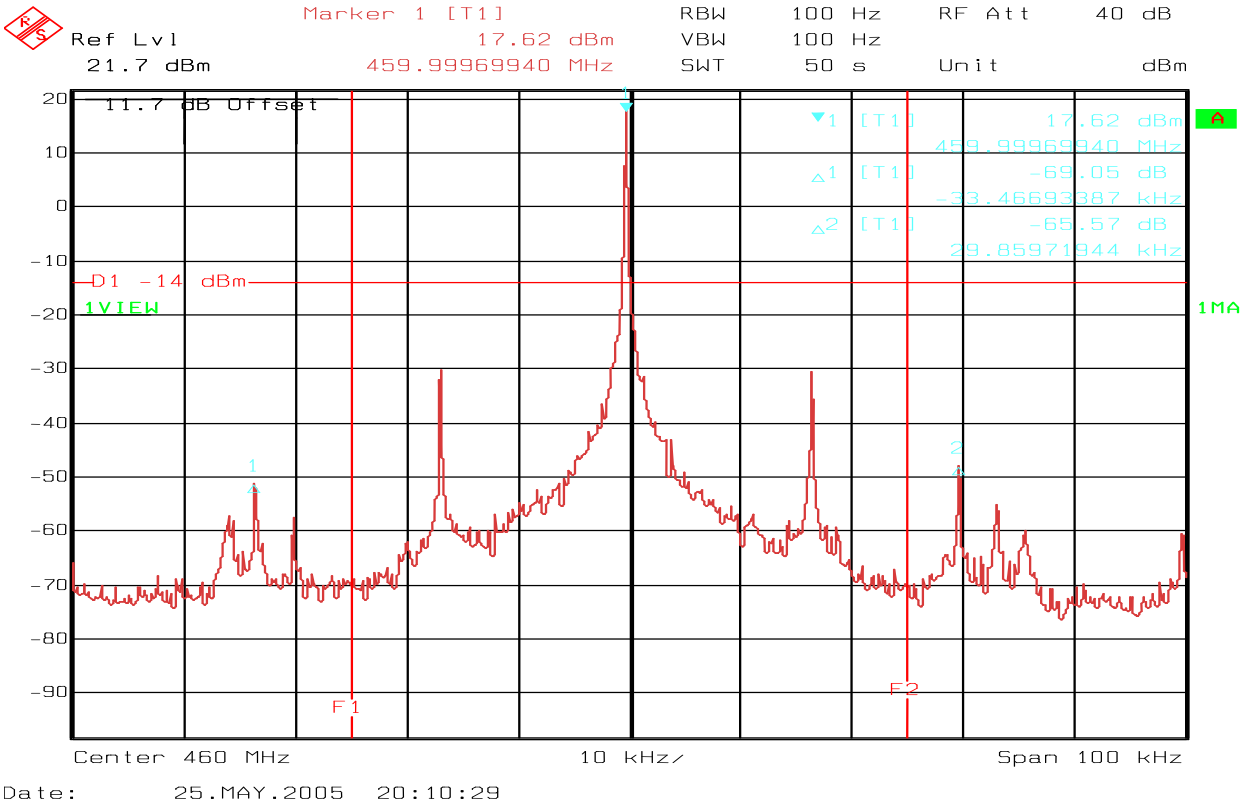
FCC1 - 60 °C , 9.1Vdc - Middle frequency 455MHz - conducted power +18.55 dBm



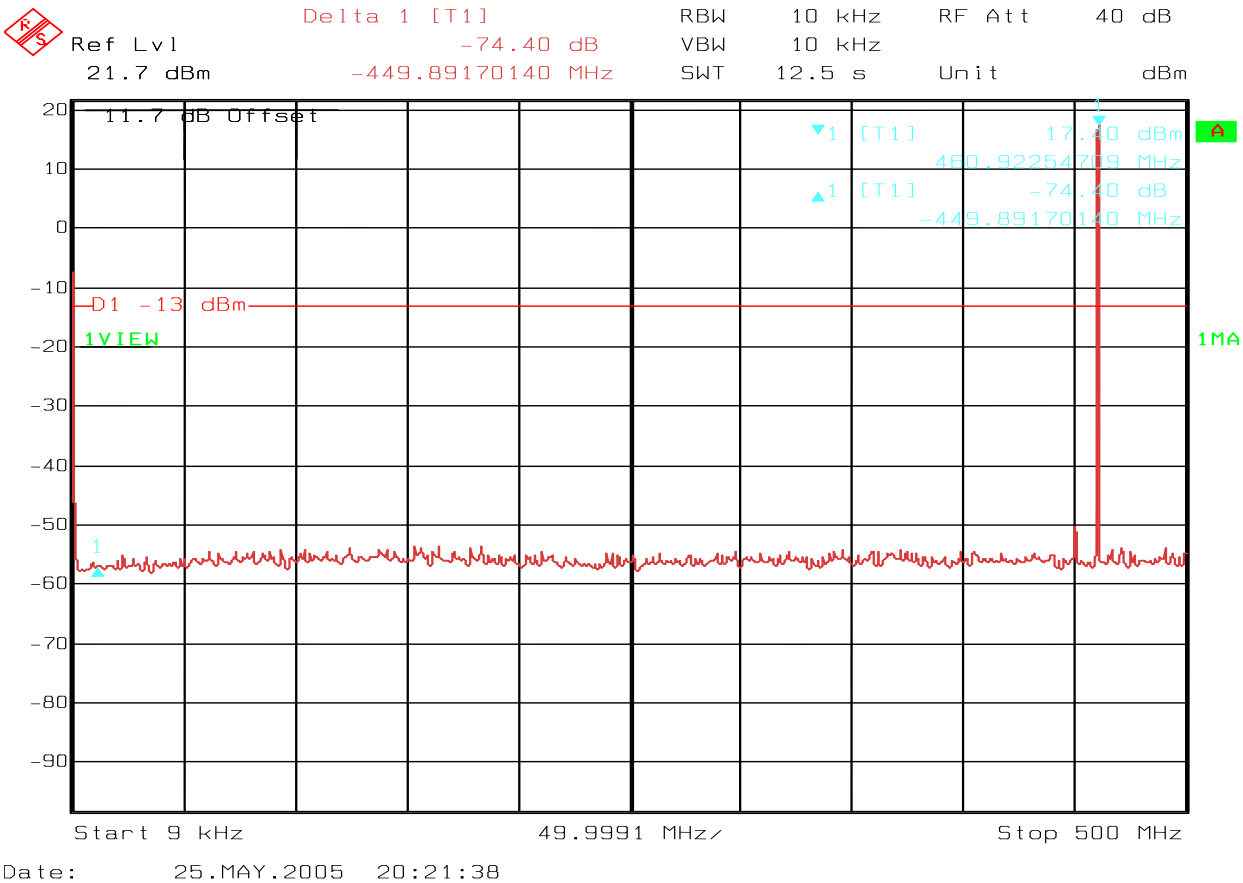
FCC1 - 60 °C , 6.0Vdc - Upper frequency 460MHz - conducted power +8.04 dBm



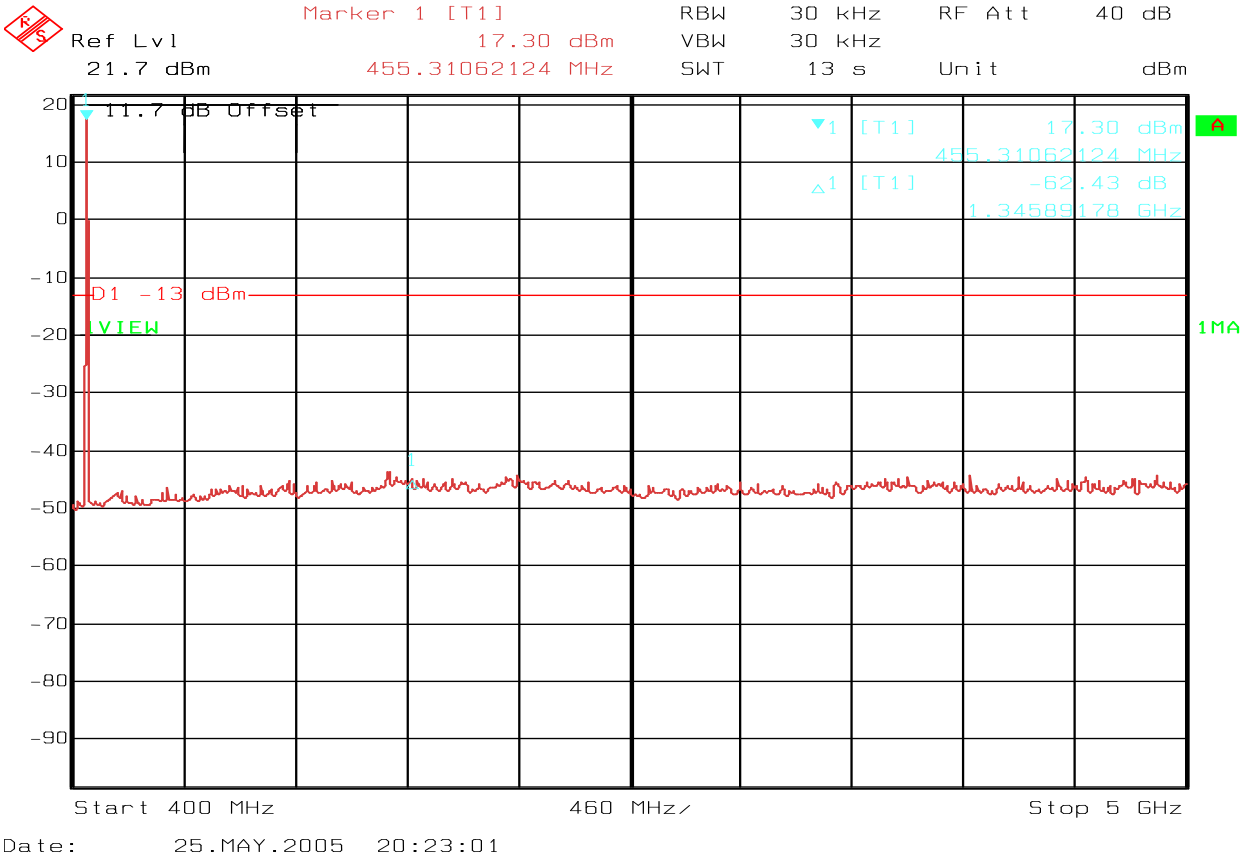
FCC1 - 60 °C , 7.2Vdc - Upper frequency 460MHz - conducted power +13.73 dBm



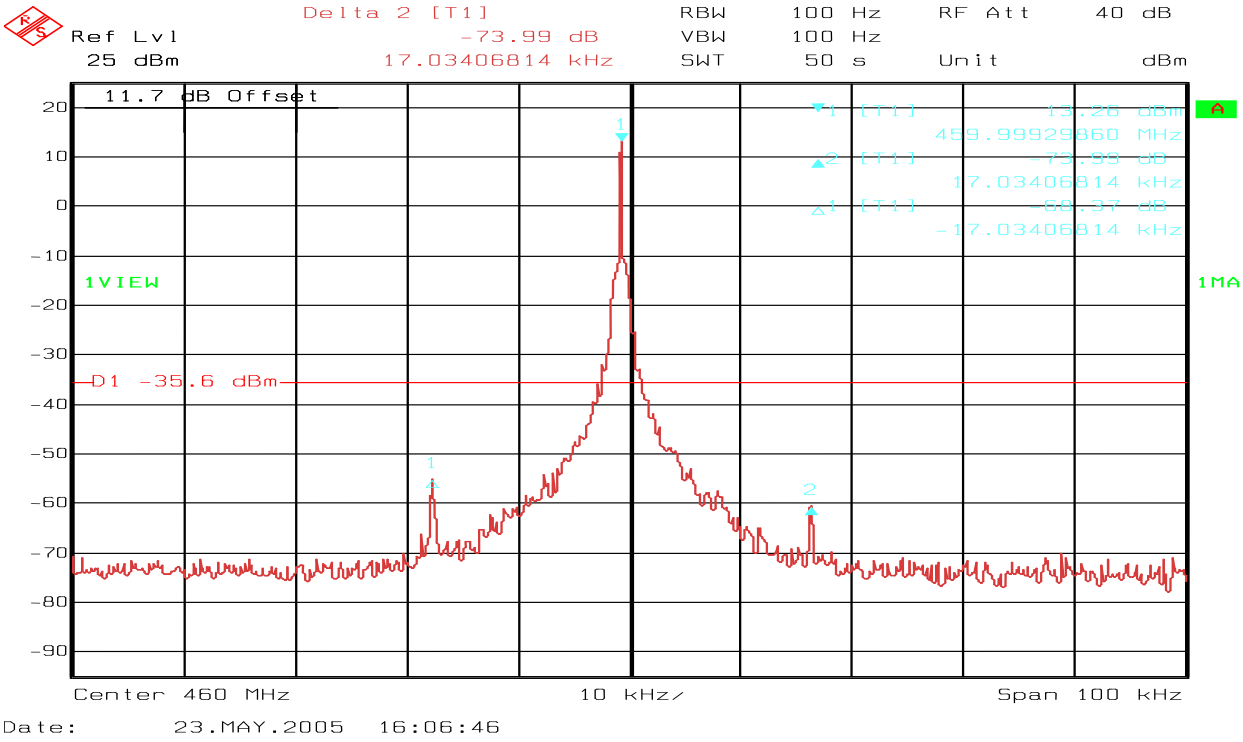
FCC1 - 60 °C , 9.1Vdc - Upper frequency 460MHz - conducted power +17.62 dBm



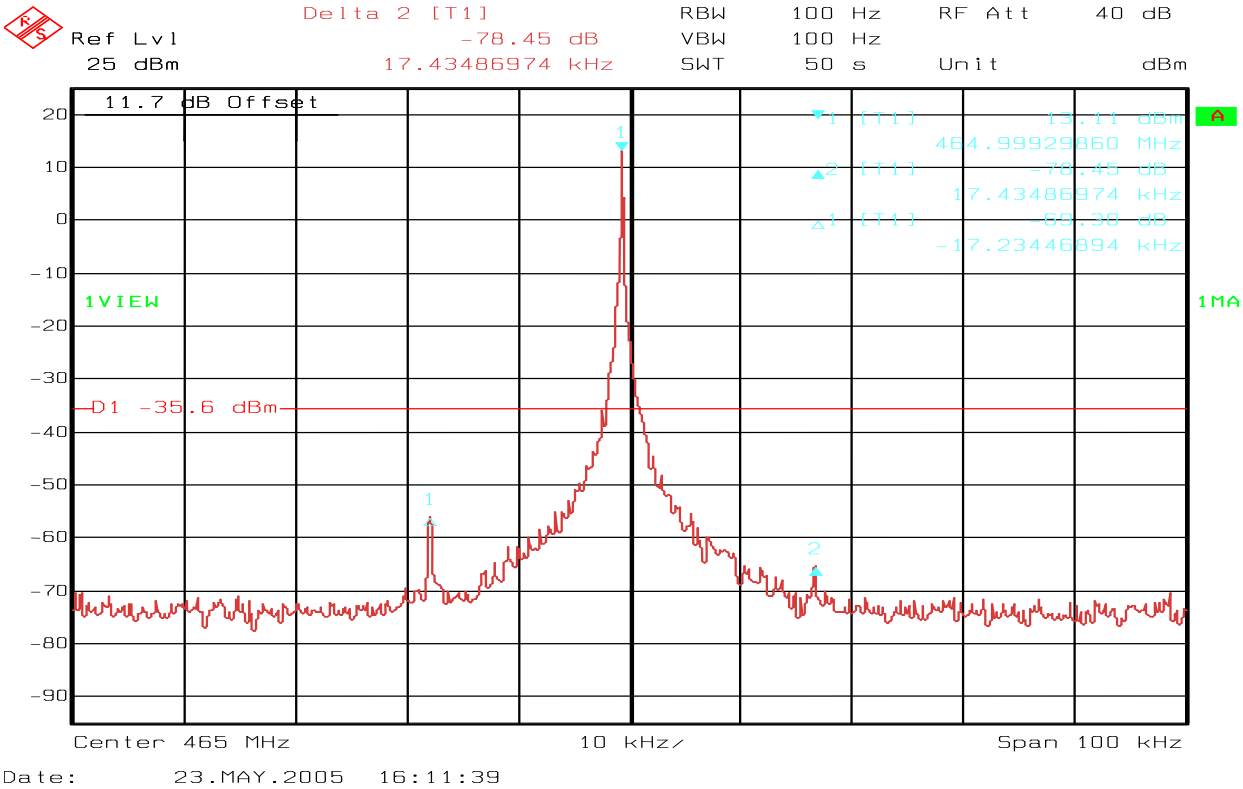
FCC1 - 60 °C , 9.1Vdc - Upper frequency 460MHz - Scan 9kHz – 500MHz



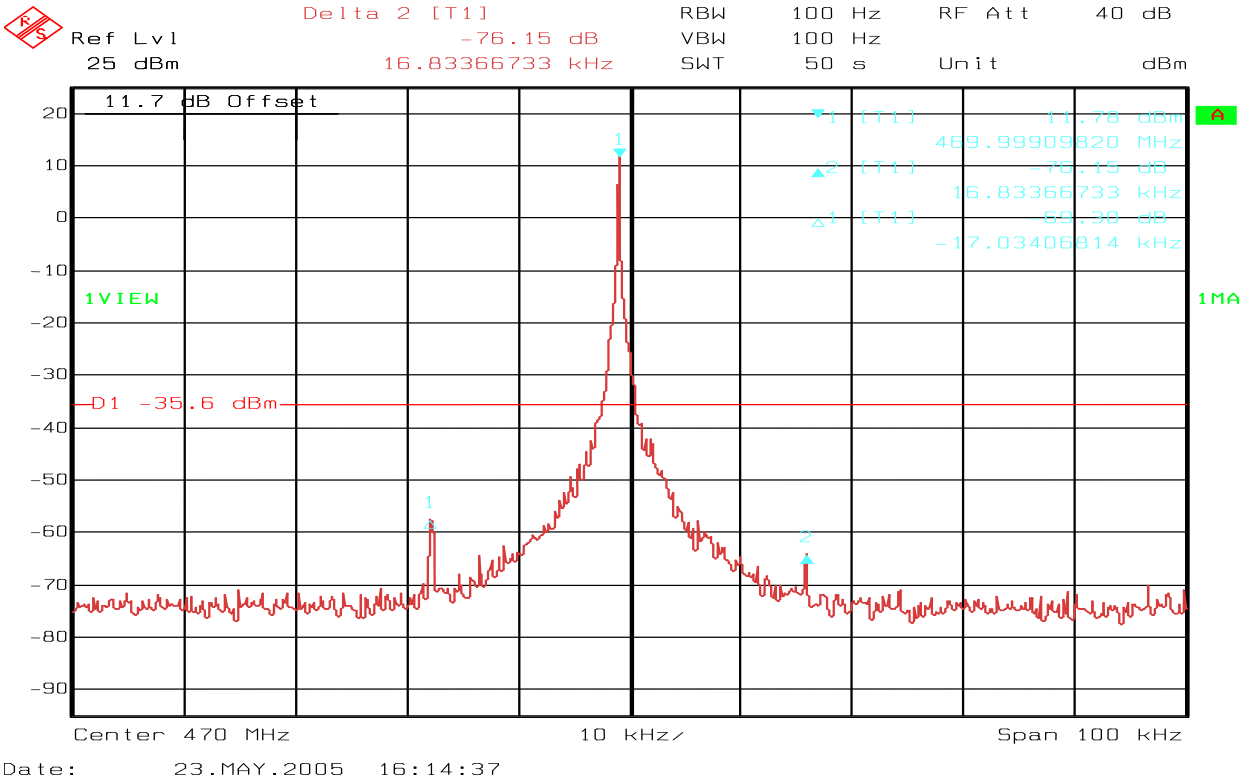
FCC1 - 60 °C , 9.1Vdc - Upper frequency 460MHz - Scan 400MHz – 5GHz



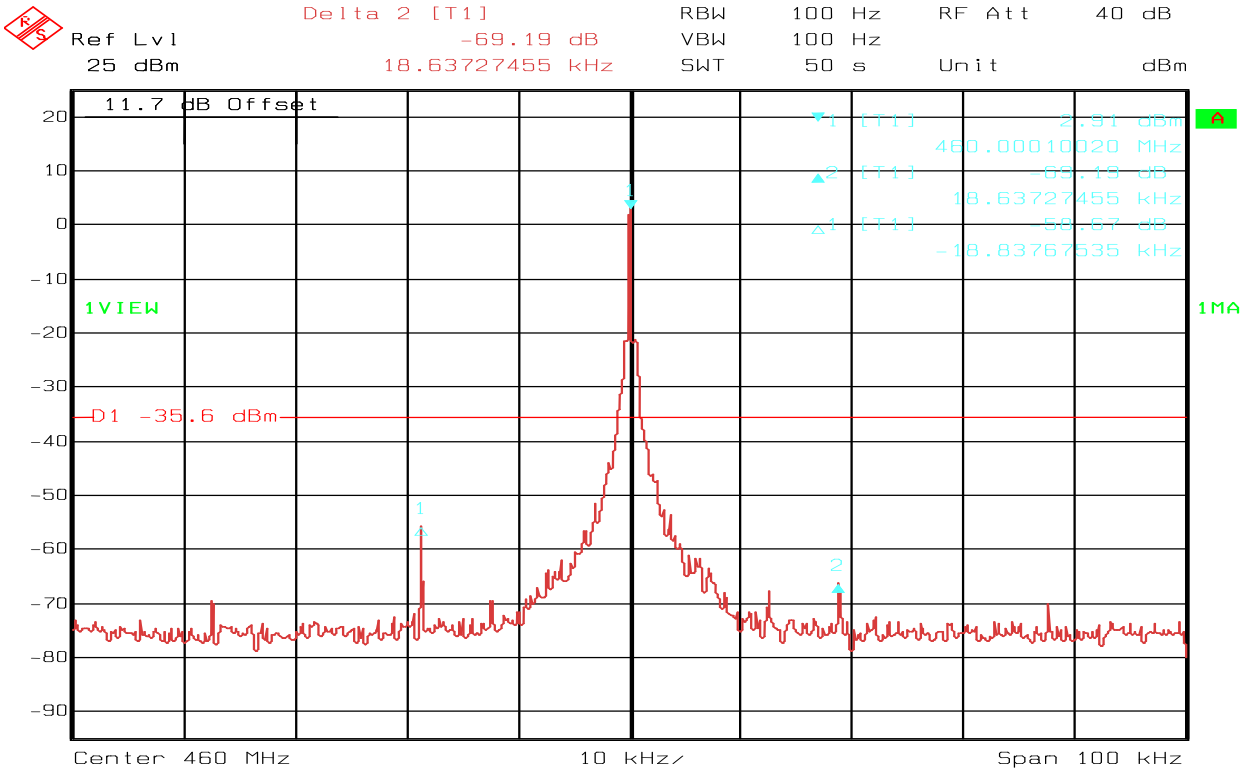
FCC2 - -30 °C , 7.2 Vdc - Lower frequency 460MHz – conducted power +13.26 dBm



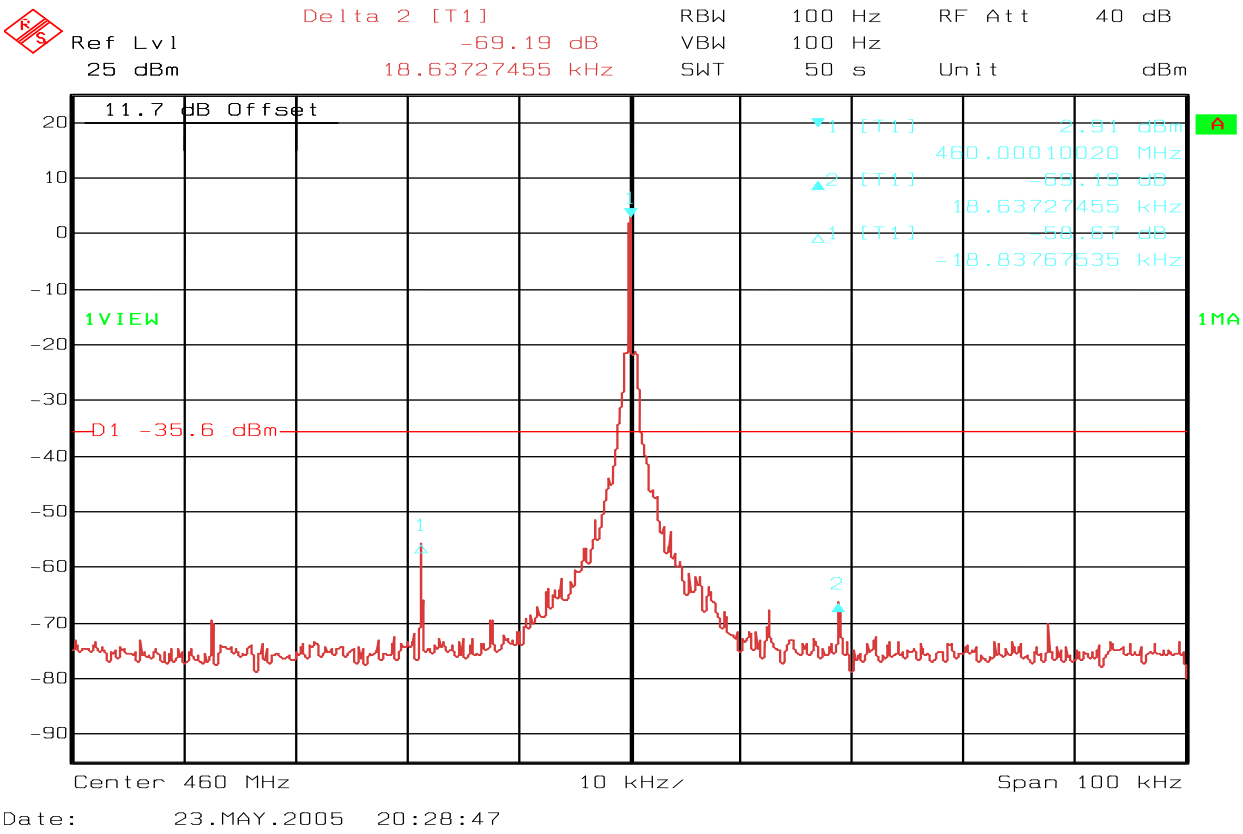
FCC2 - -30 °C , 7.2 Vdc - Middel frequency 465 MHz – Conducted power +13.11 dBm



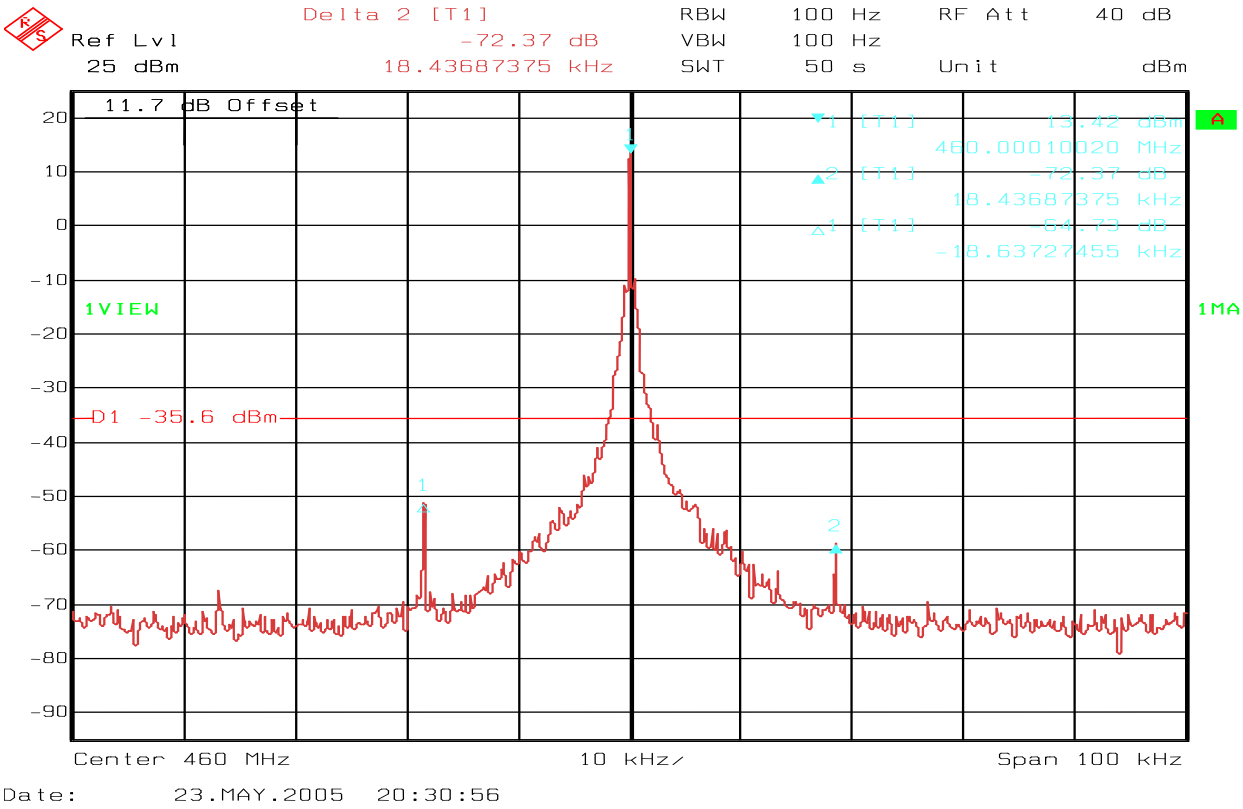
FCC2 - -30 °C , 7.2Vdc - Upper frequency 470MHz – Conducted power + 11.78 dBm



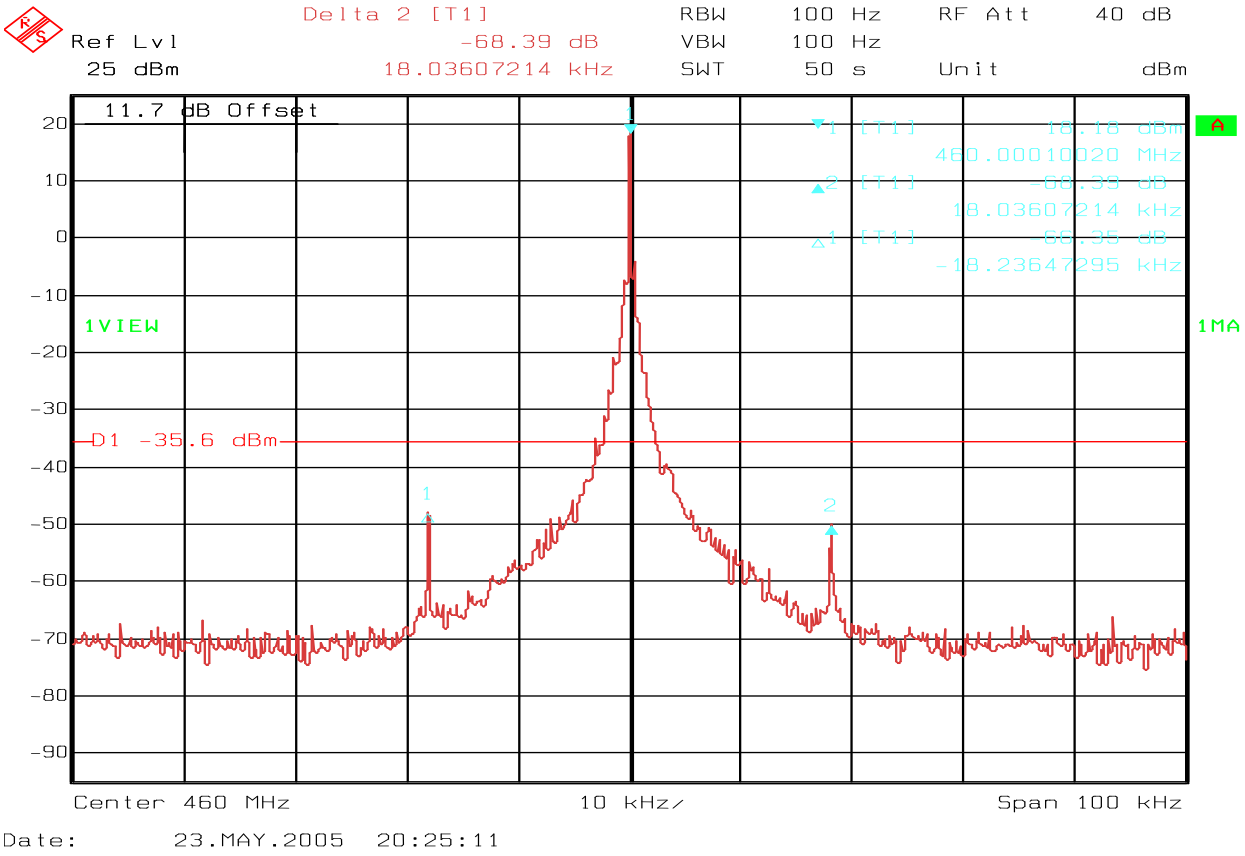
FCC2 - -30 °C , 7.2Vdc - Lower frequency 460MHz - conducted power +15.30 dBm



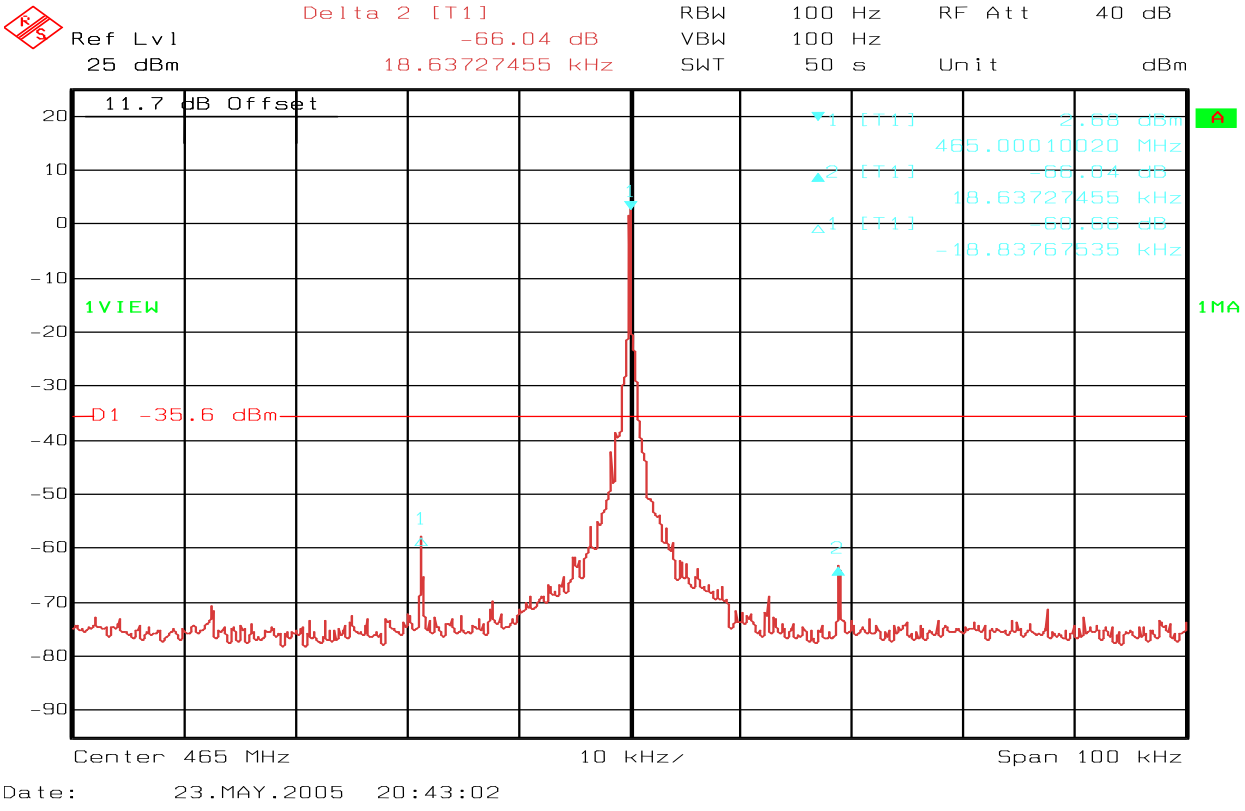
FCC2 - -20 °C , 6.0Vdc - Lower frequency 460MHz – conducted power +2.91 dBm



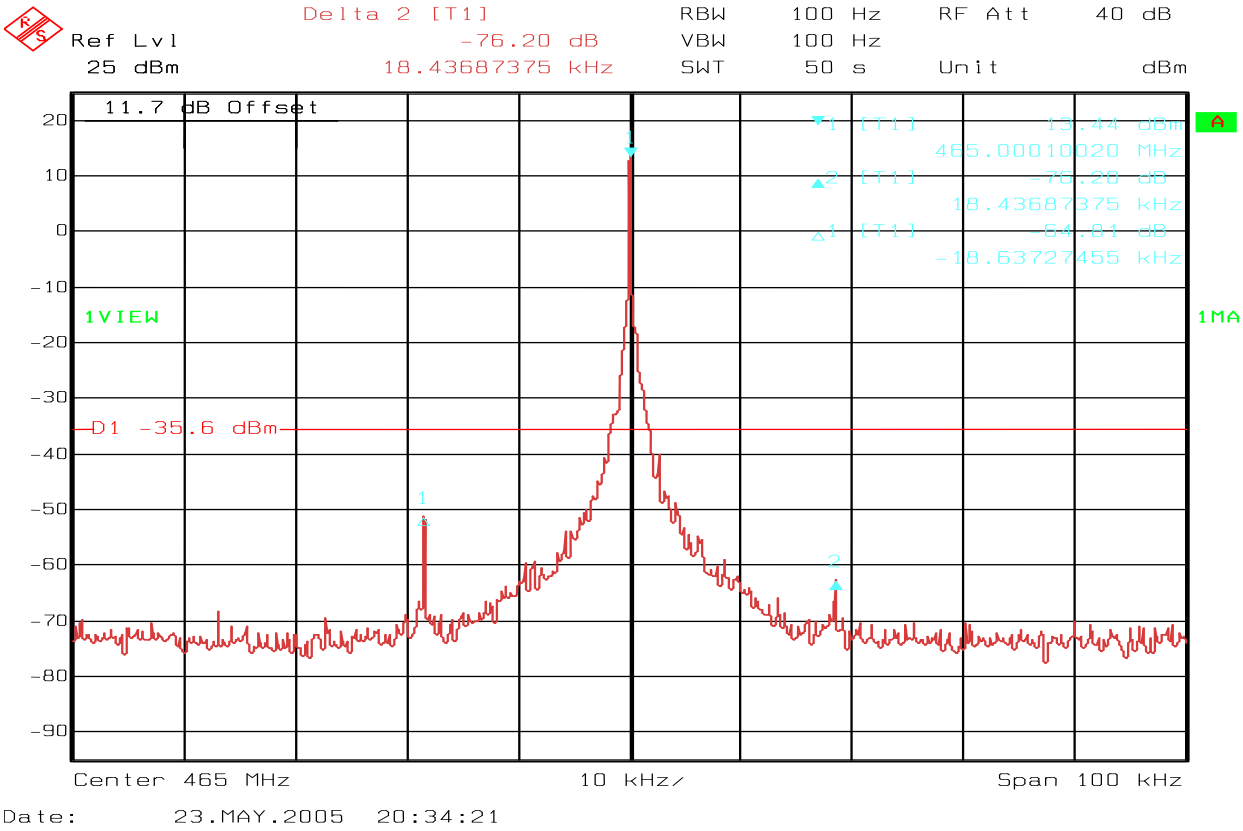
FCC2 - -20 °C , 7.2 Vdc - Lower frequency 460MHz – conducted power +13.42 dBm



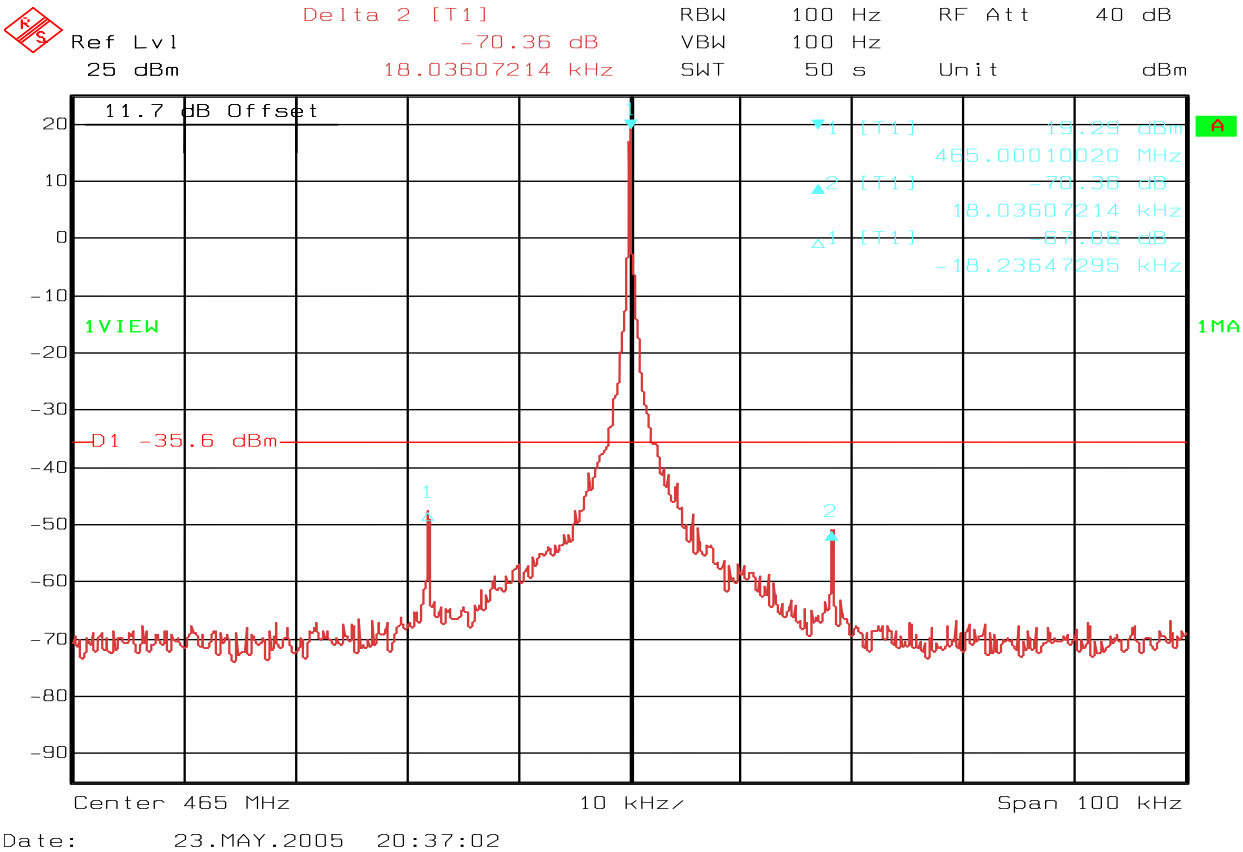
FCC2 - -20 °C , 9.1 Vdc - Lower frequency 460MHz – conducted power +18.18 dBm



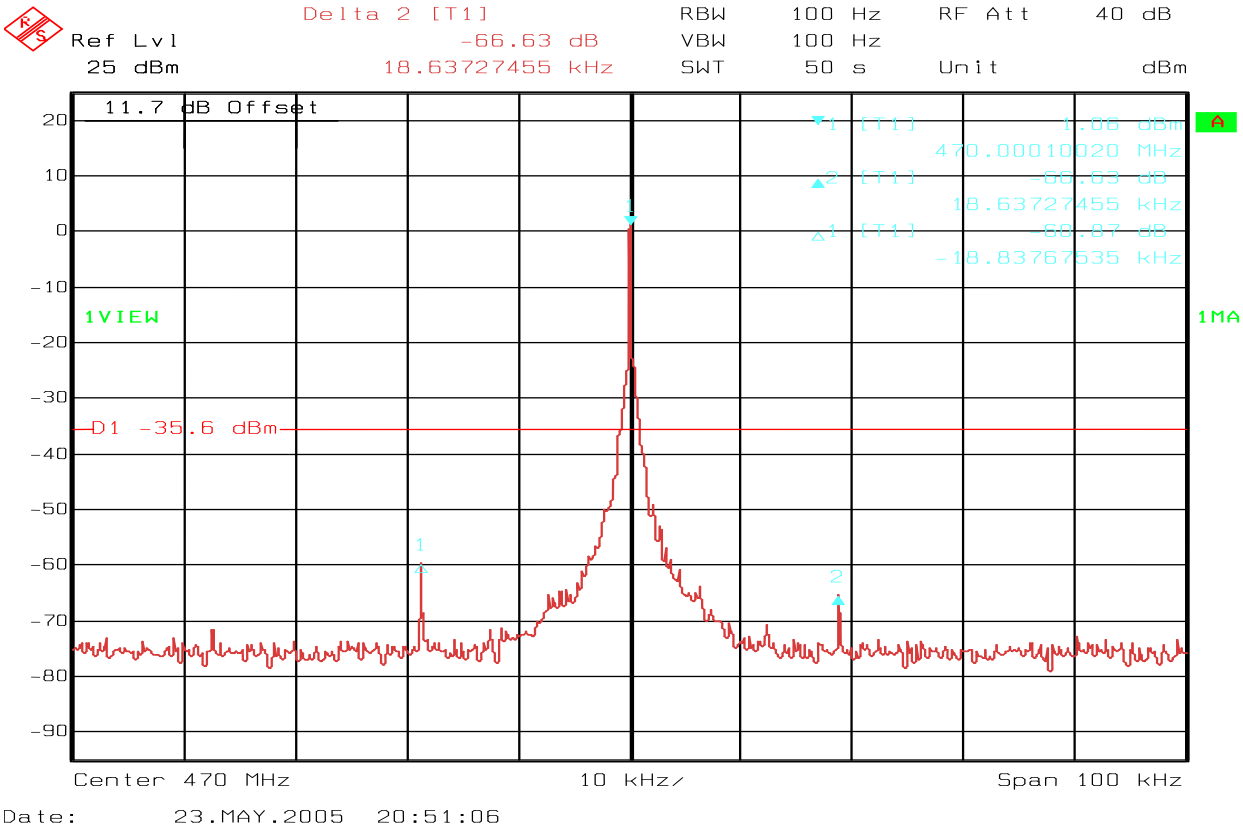
FCC2 - -20 °C ,6.0 Vdc - Middel frequency 465MHz – conducted power +2.68 dBm



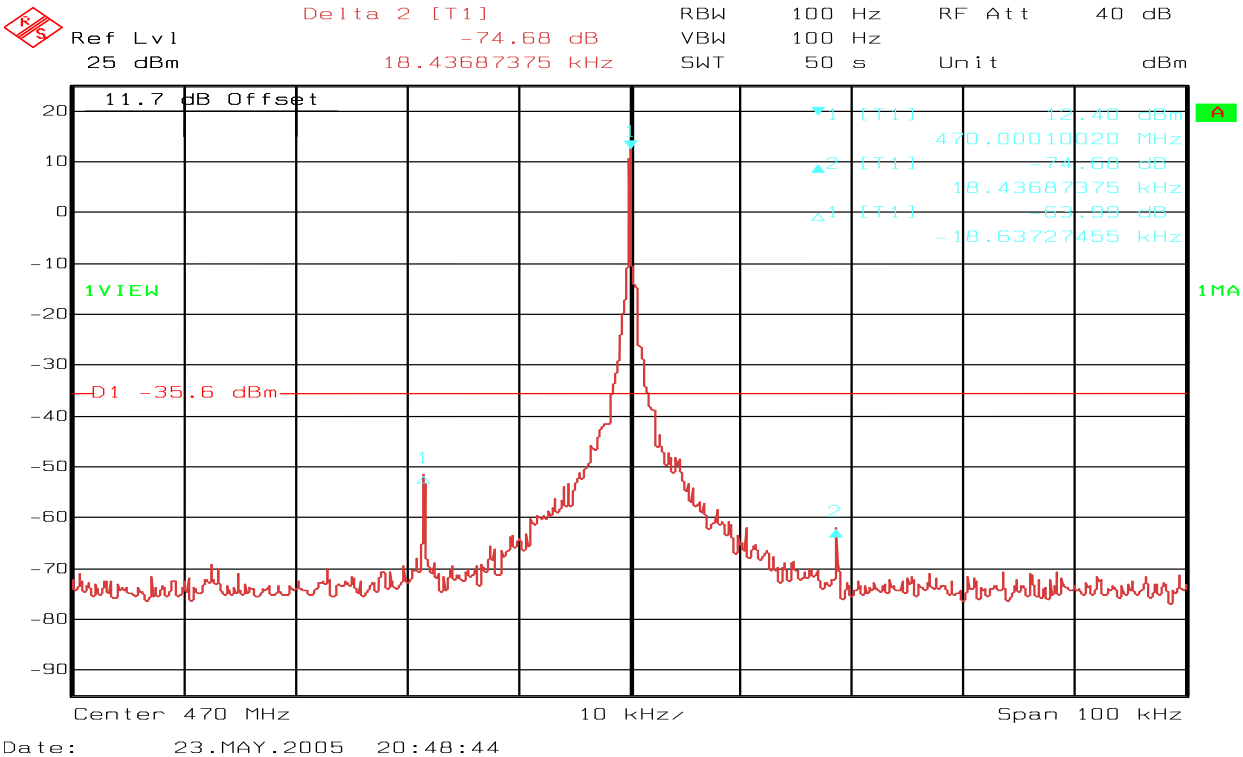
FCC2 - -20 °C , 7.2 Vdc - Middel frequency 465MHz – conducted power +13.44 dBm



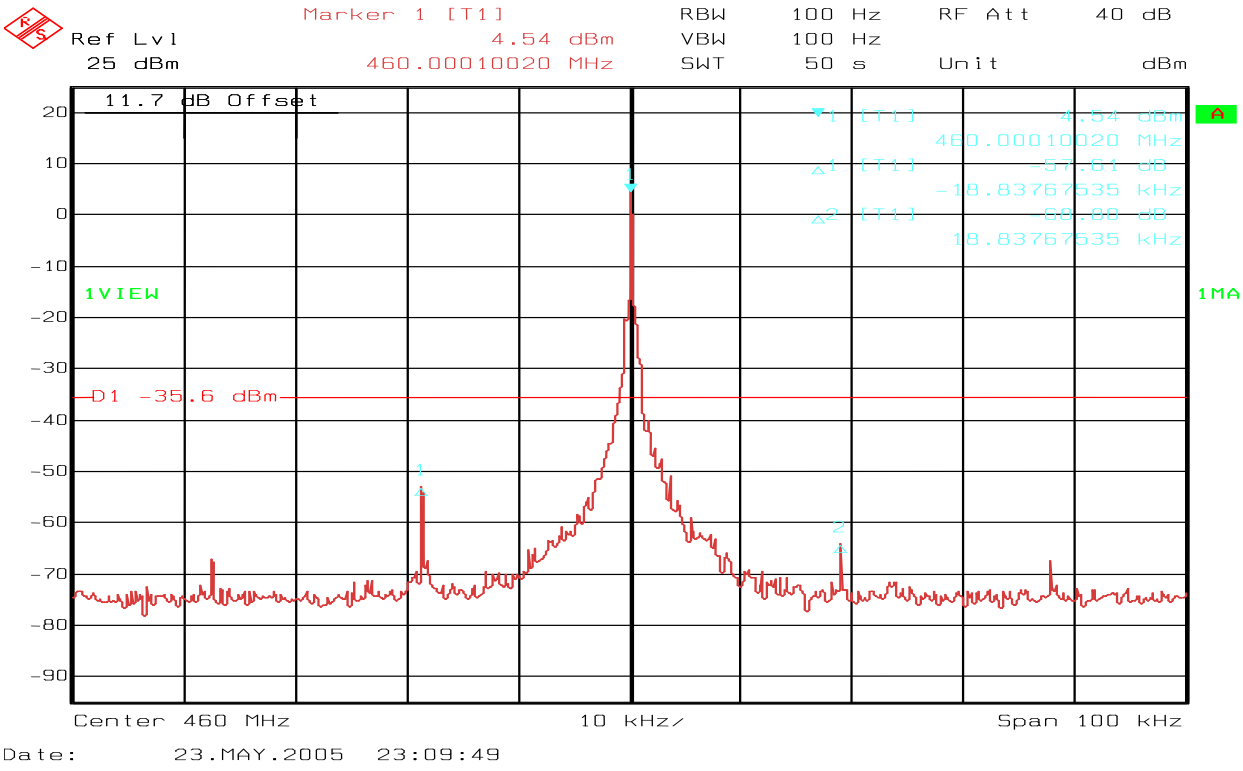
FCC2 - -20 °C , 9.1 Vdc - Middel frequency 465MHz – conducted power +19.29 dBm



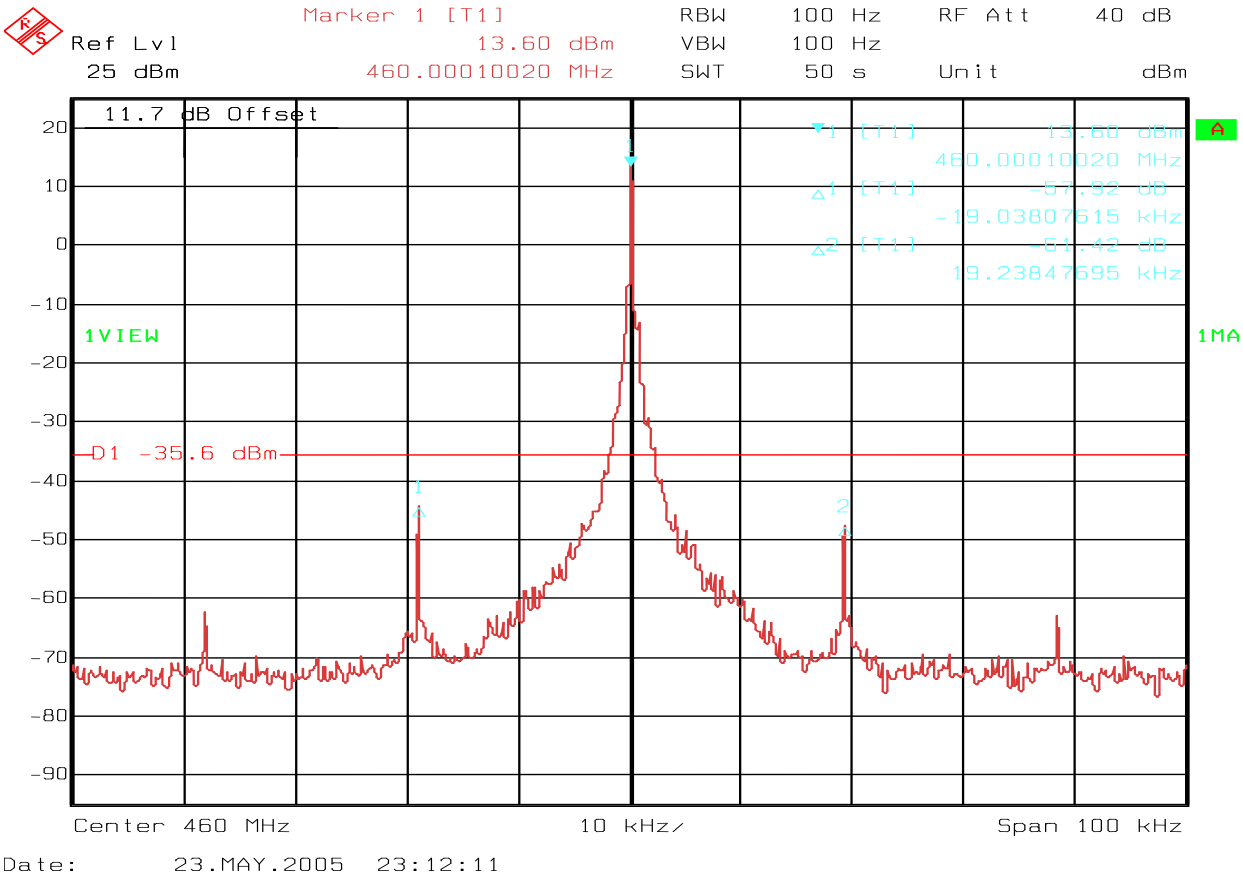
FCC2 - -20 °C , 6.0 Vdc - Upper frequency 470MHz – conducted power +1.06 dBm



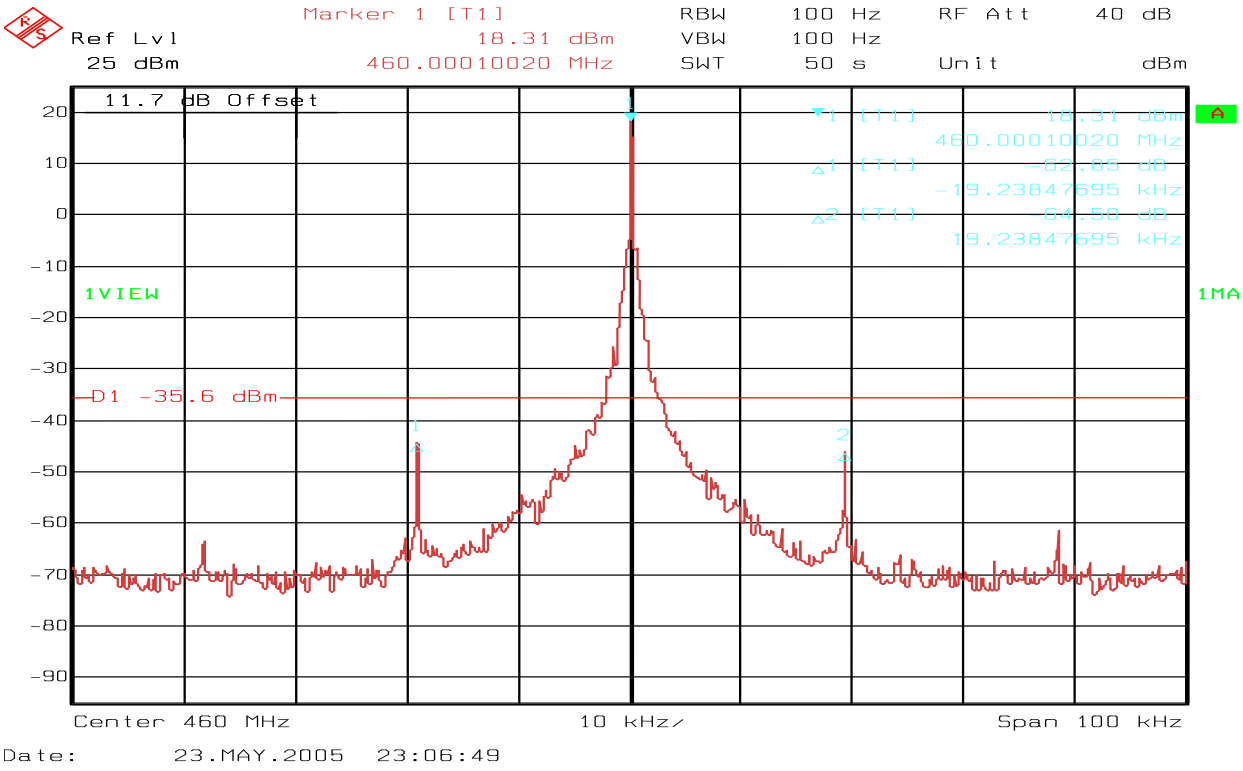
FCC2 - -20 °C , 9.1 Vdc - Upper frequency 470MHz – conducted power +12.40 dBm



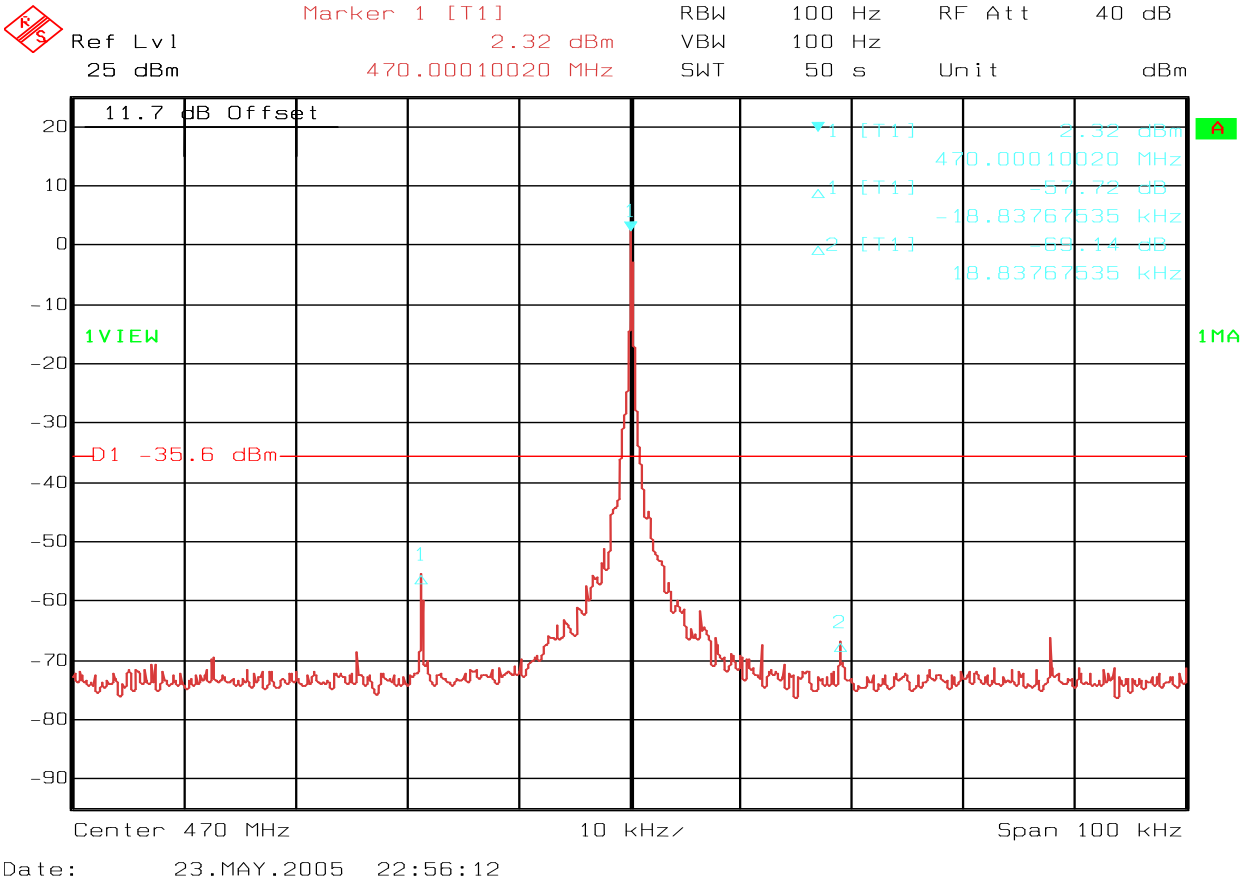
FCC2 - -10 °C , 6.0 Vdc - Lower frequency 460MHz – conducted power +4.54 dBm



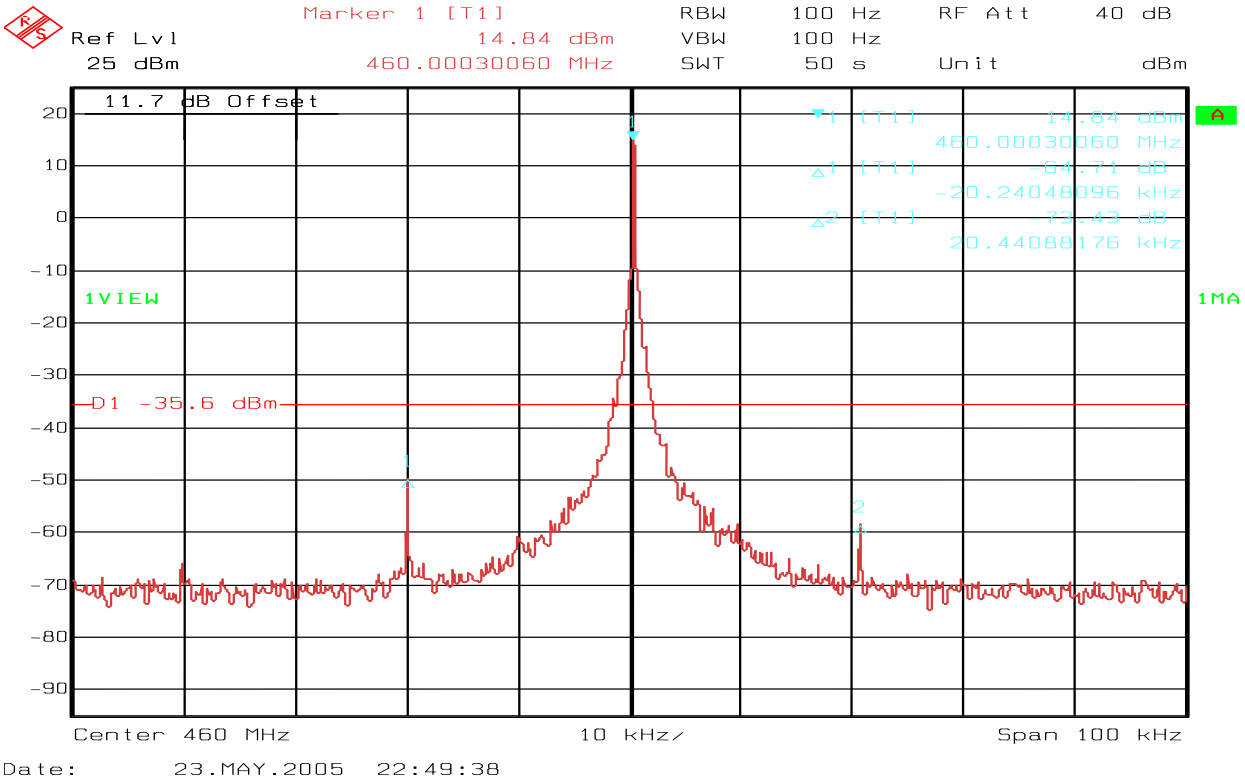
FCC2 - -10 °C , 7.2 Vdc - Lower frequency 460MHz – conducted power +13.60 dBm



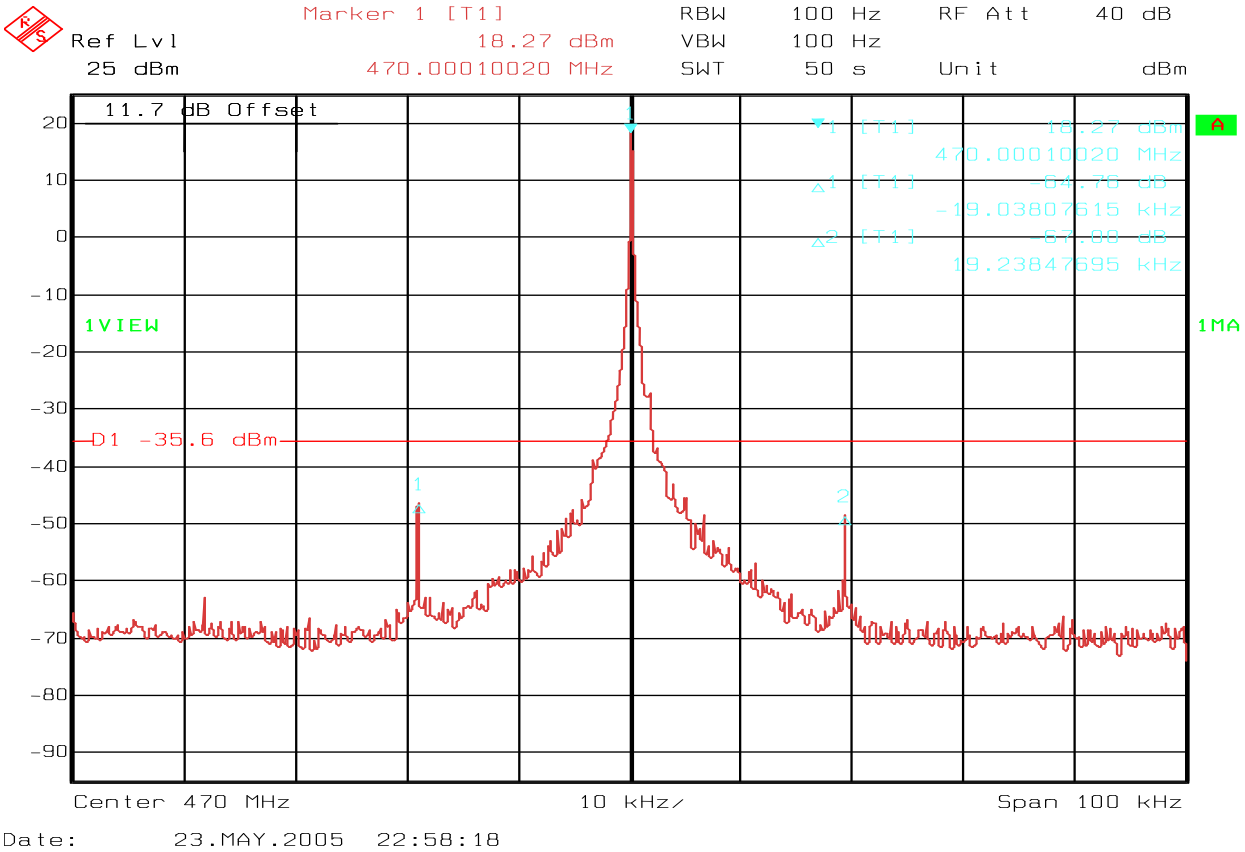
FCC2 - -10 °C , 9.1 Vdc - Lower frequency 460MHz – conducted power +18.31 dBm



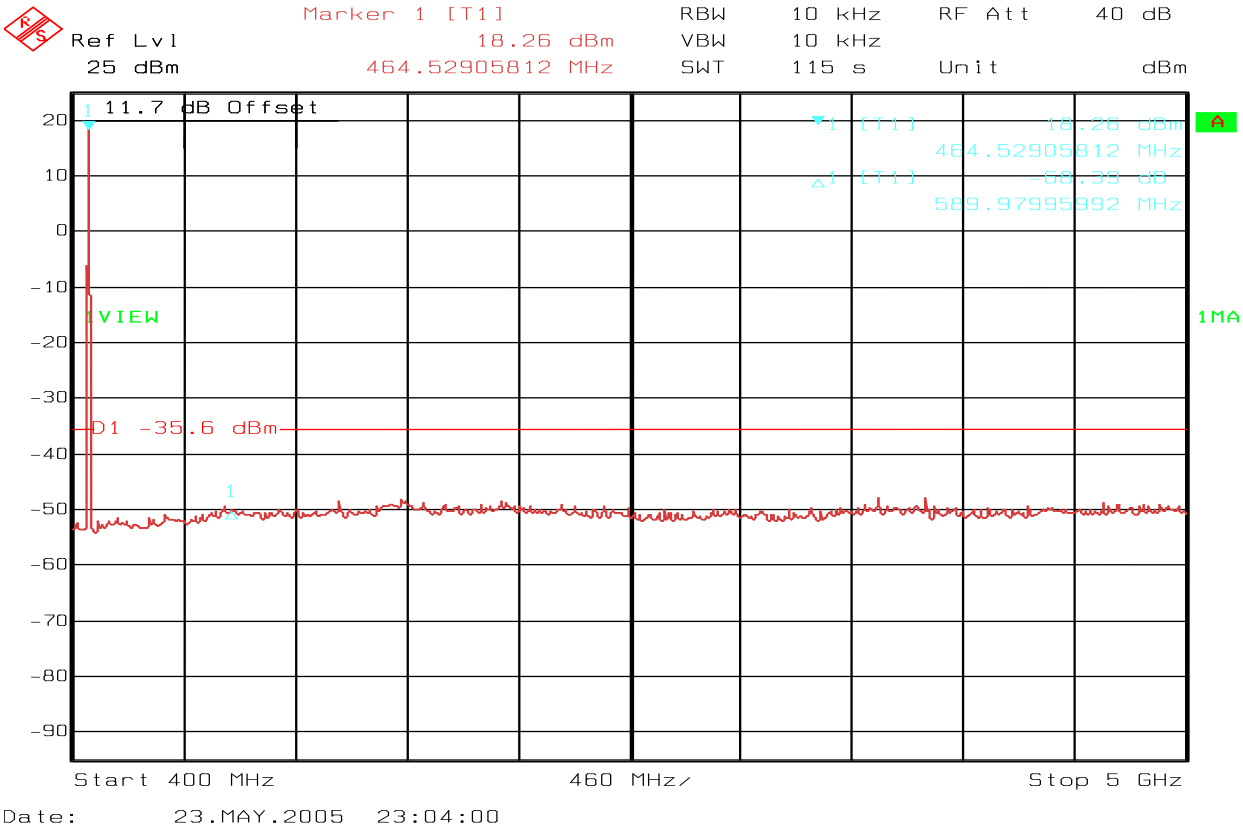
FCC2 - -10 °C , 6.0 Vdc - Upper frequency 470MHz – conducted power +2.32 dBm



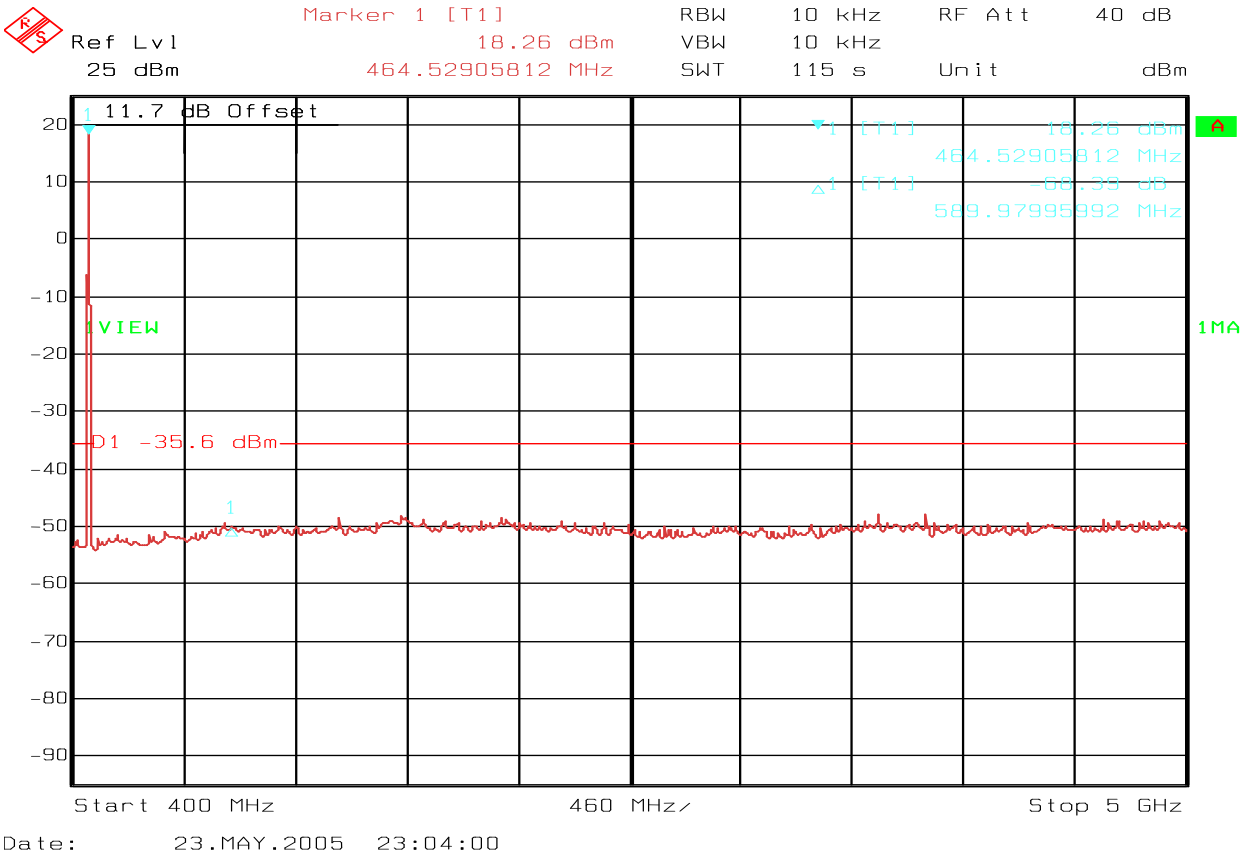
FCC2 - -10 °C , 7.2 Vdc - Upper frequency 470MHz – conducted power +14.84 dBm



FCC2 - -10 °C , 9.1 Vdc - Upper frequency 470MHz – conducted power +18.27 dBm

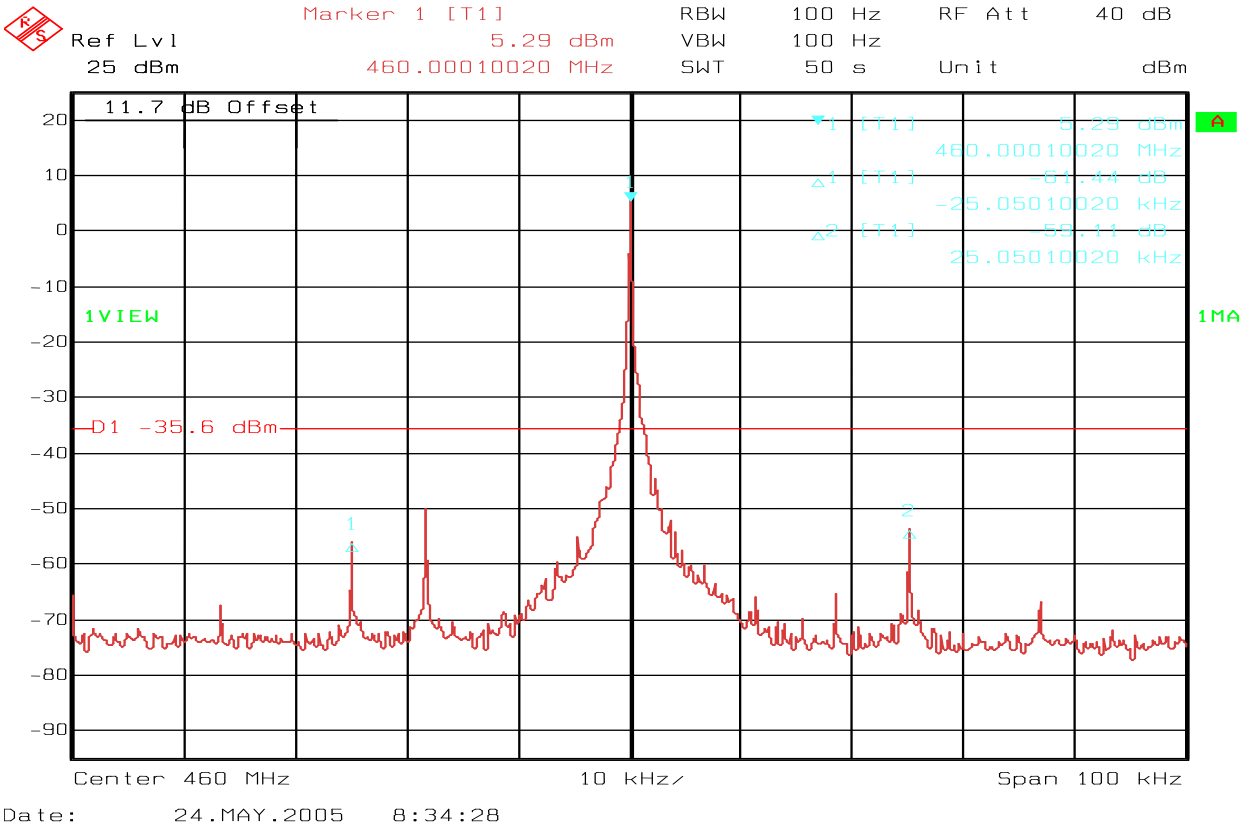


FCC2 - -10 °C , 9.1 Vdc - Upper frequency 470MHz – Scan from 9kHz to 500 MHz

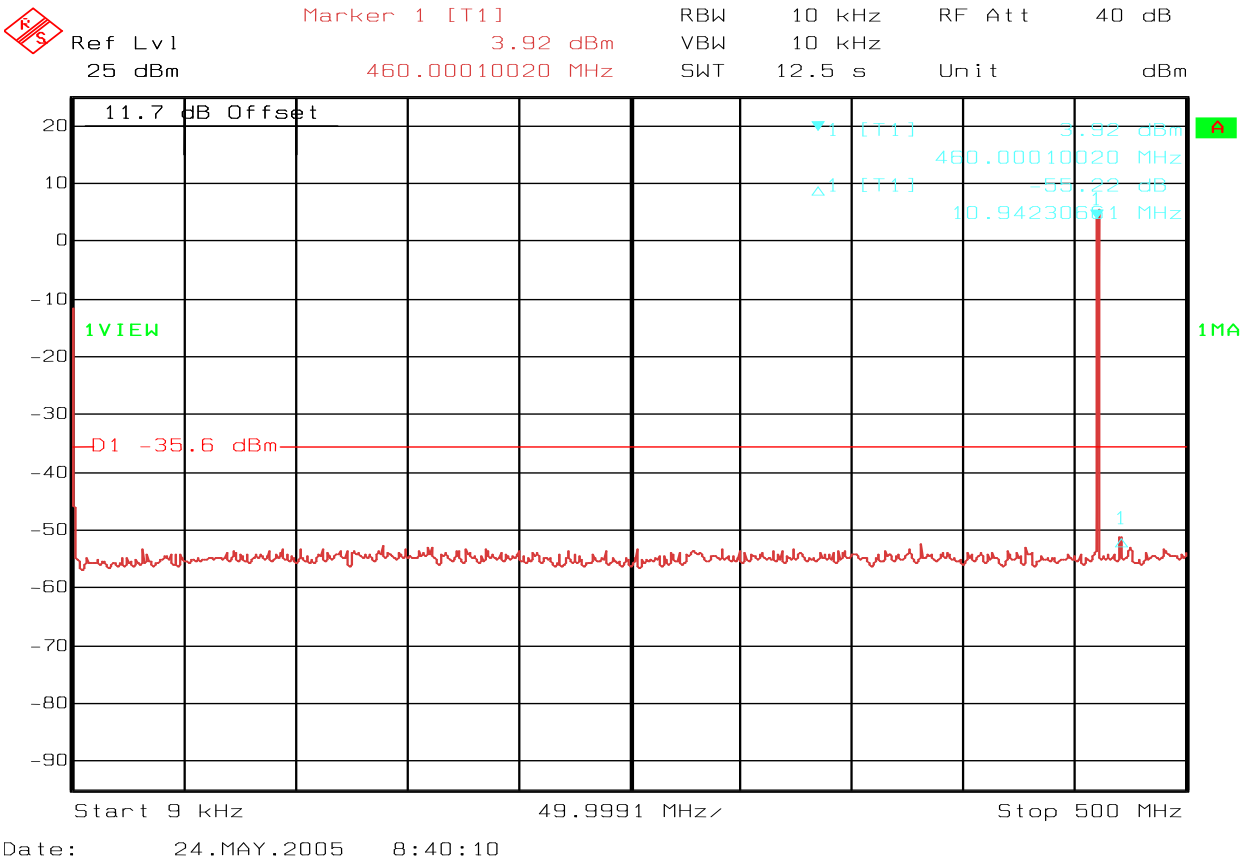


FCC2 - -10 °C , 9.1 Vdc - Upper frequency 470MHz – Scan from 400 MHz to 5 GHz

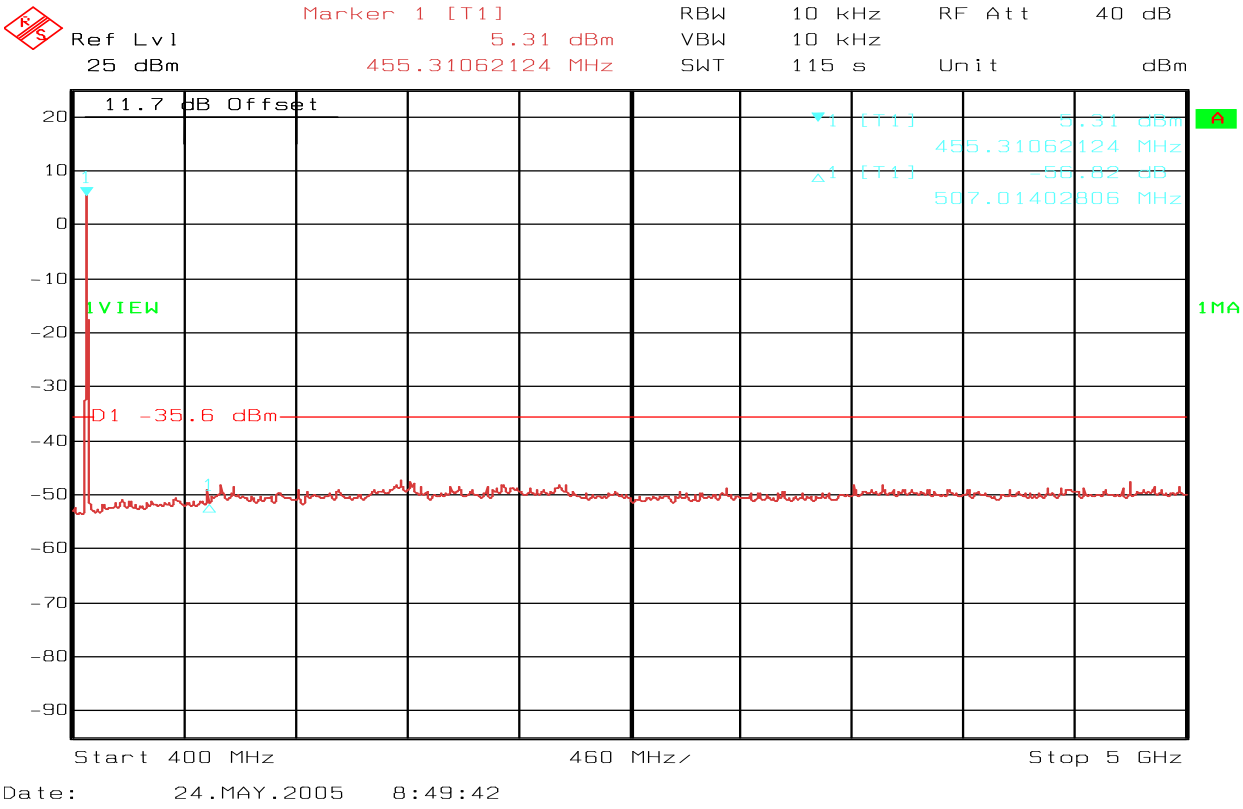
Nemko Comlab
Gåsevikveien 8, Kjeller, Norway
mailto:post@comlab.no



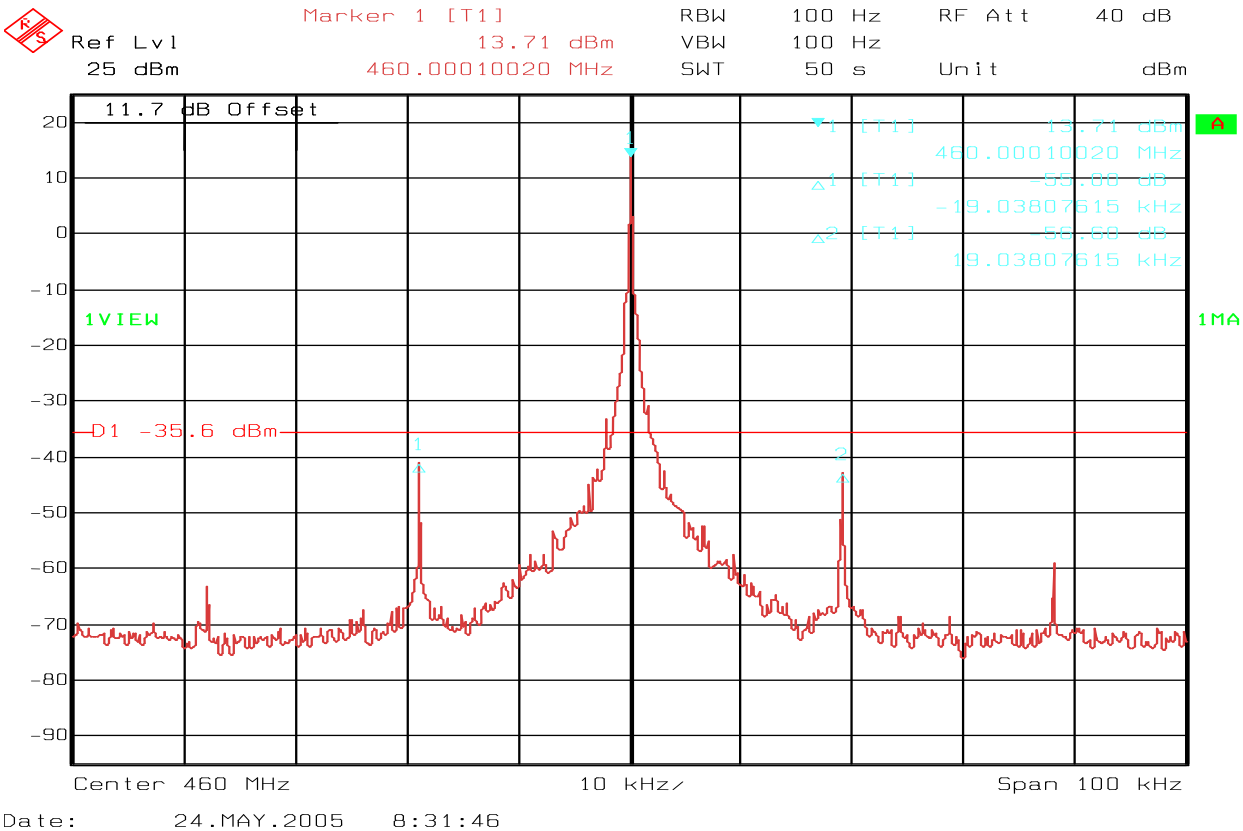
FCC2 - 0 °C , 6 Vdc - Lower frequency 460MHz –Conducted power +5.29 dBm



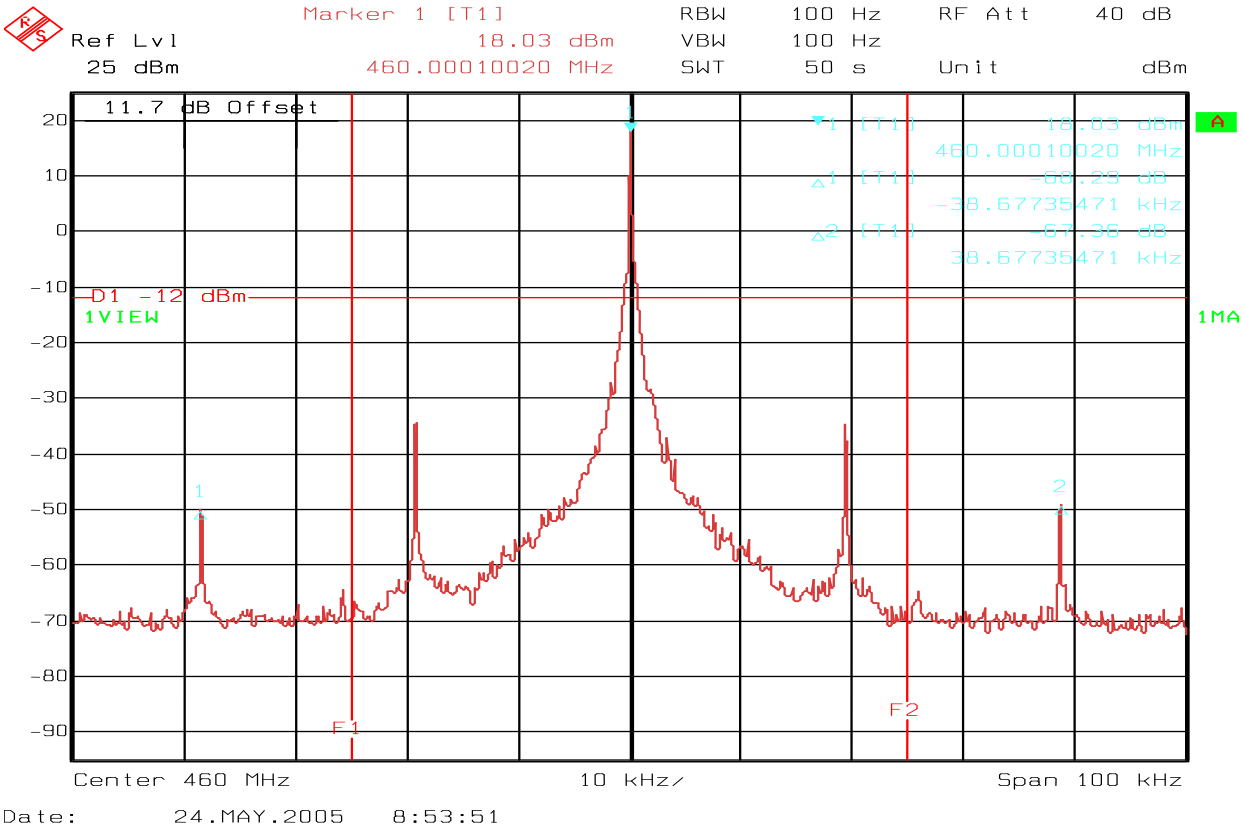
FCC2 - 0 °C , 6 Vdc - Lower frequency 460MHz – Scan from 9kHz to 500MHz



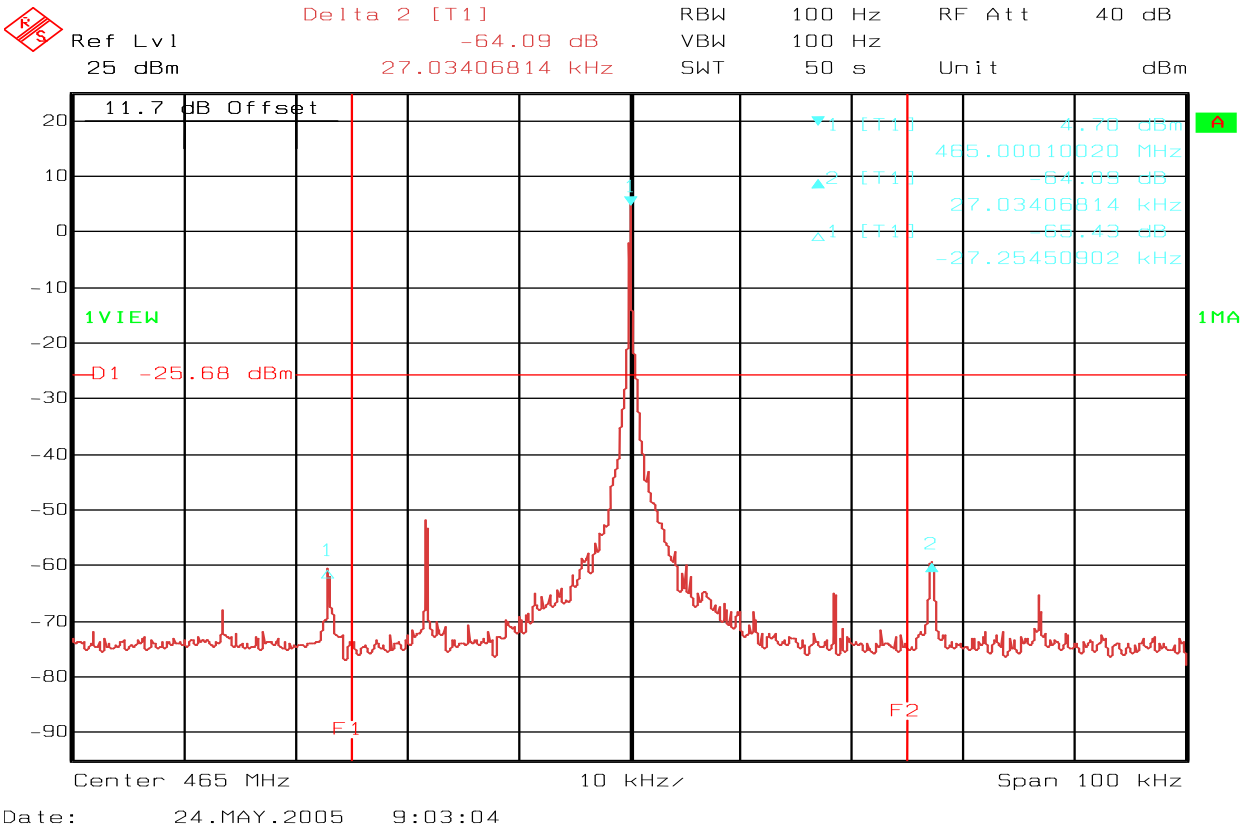
FCC2 - 0 °C , 6 Vdc - Lower frequency 460MHz – Scan from 400MHz – 5GHz



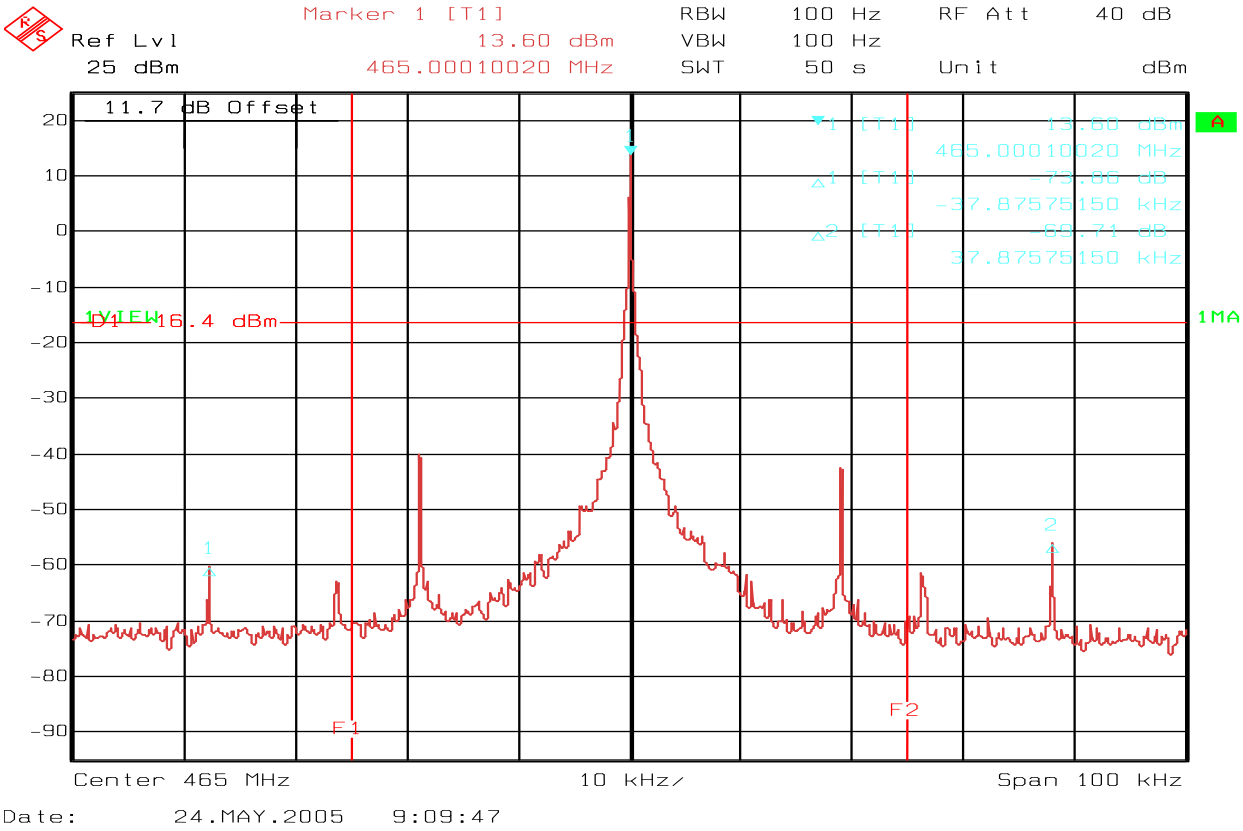
FCC2 - 0 °C , 7.2 Vdc - Lower frequency 460MHz –Conducted power +13.71 dBm



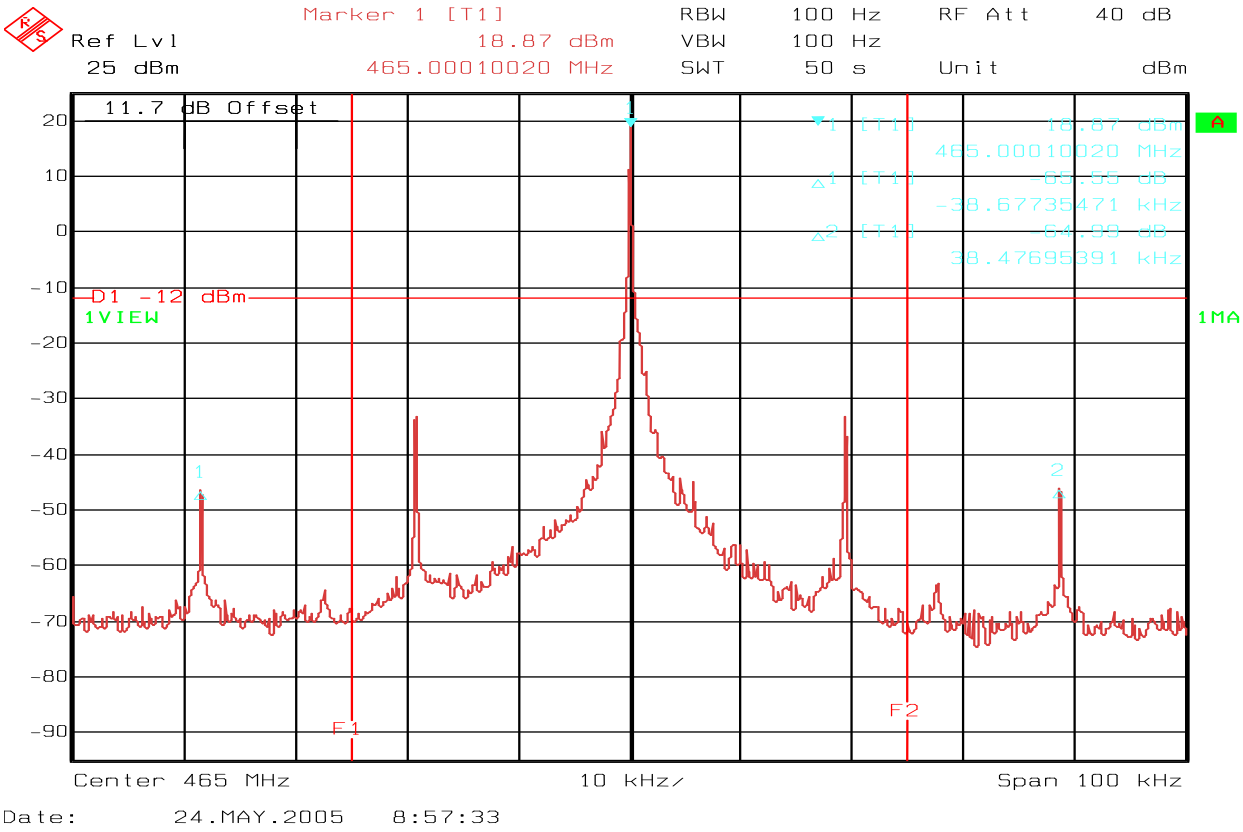
FCC2 - 0 °C , 9.1 Vdc - Lower frequency 460MHz –Conducted power +18.03 dBm



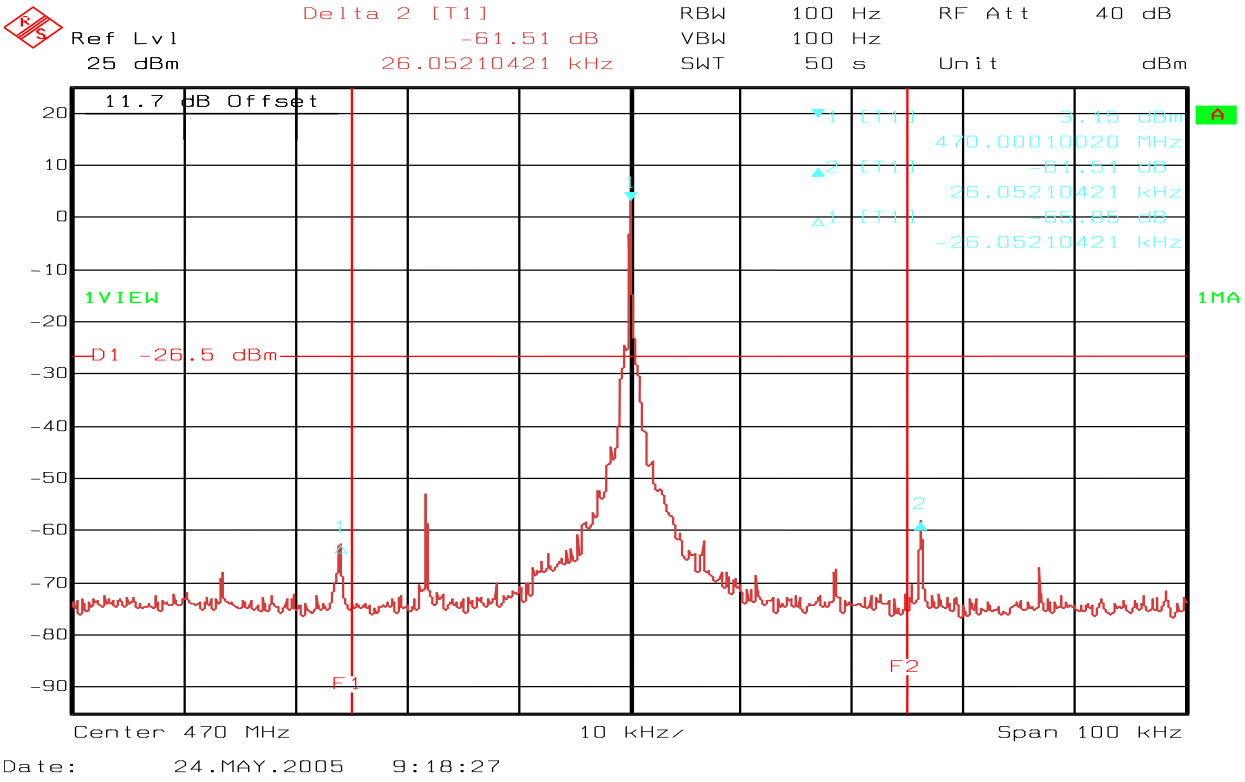
FCC2 - 0 °C , 6 Vdc - Middel frequency 465MHz –Conducted power +4.70 dBm



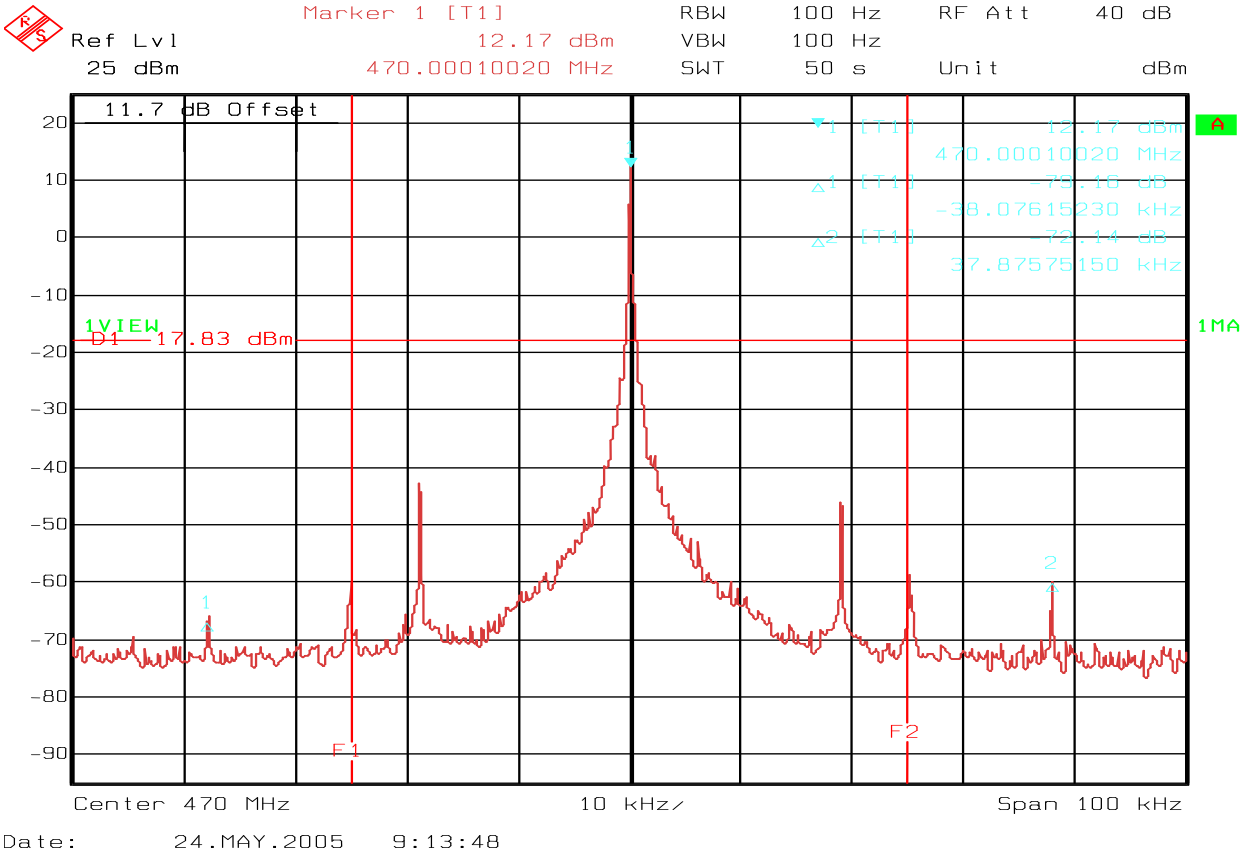
FCC2 - 0 °C , 7.2 Vdc - Middel frequency 465MHz –Conducted power +13.60 dBm



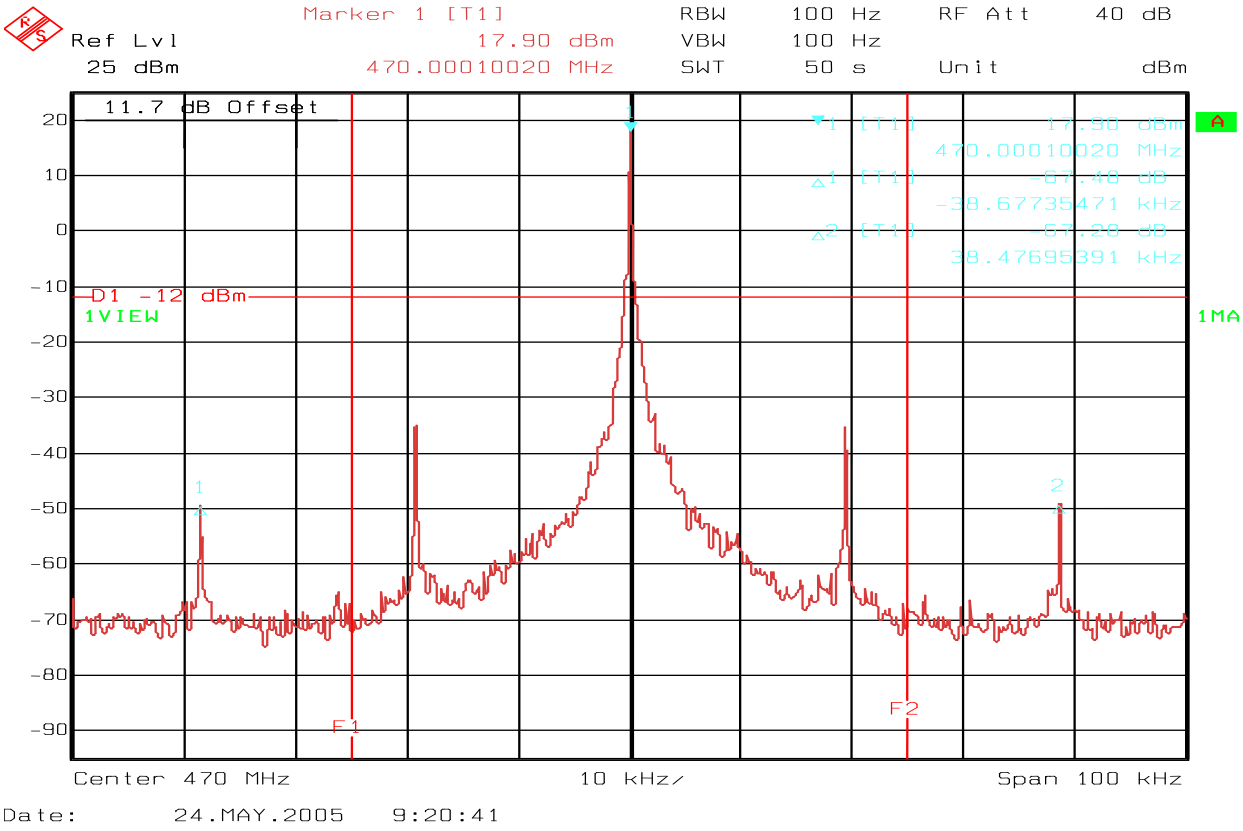
FCC2 - 0 °C , 9.1 Vdc - Middel frequency 465MHz –Conducted power +18.87 dBm



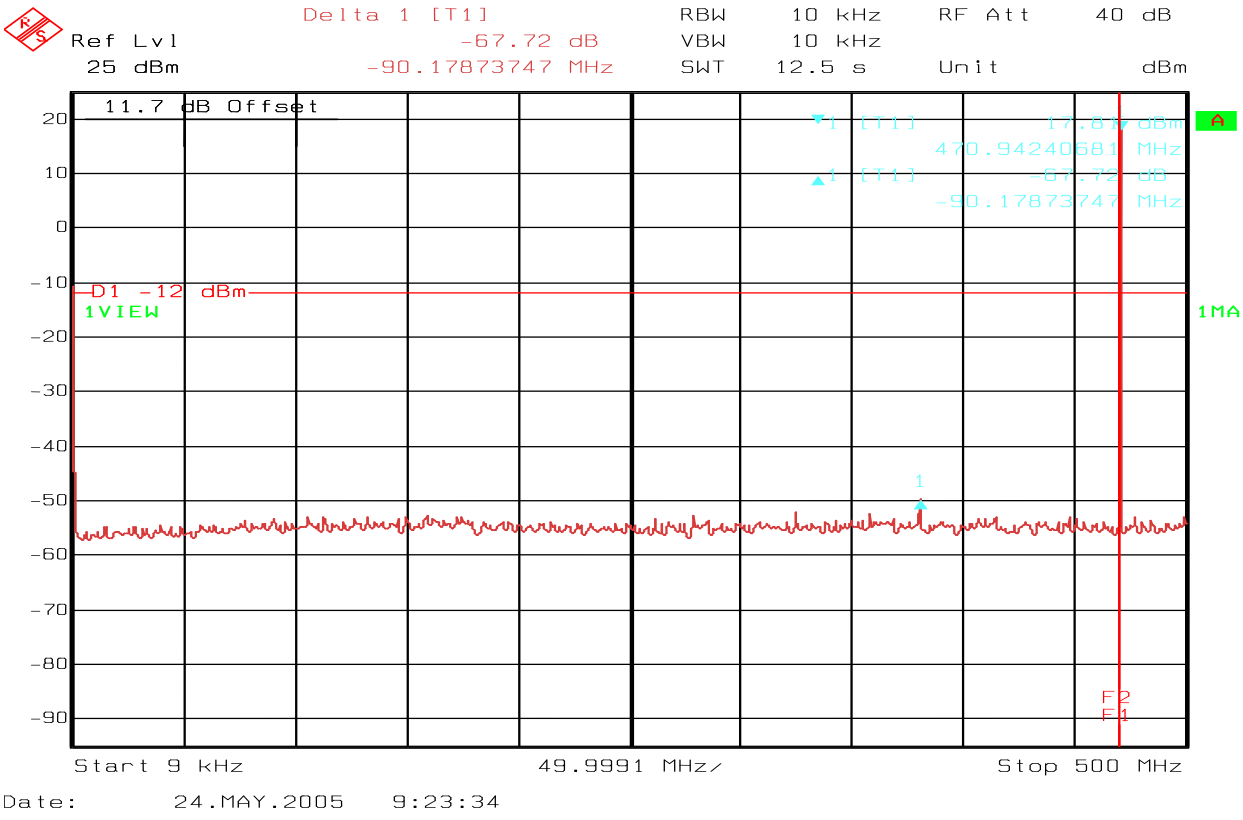
FCC2 - 0 °C , 6.0 Vdc - Upper frequency 470MHz –Conducted power +3.15 dBm



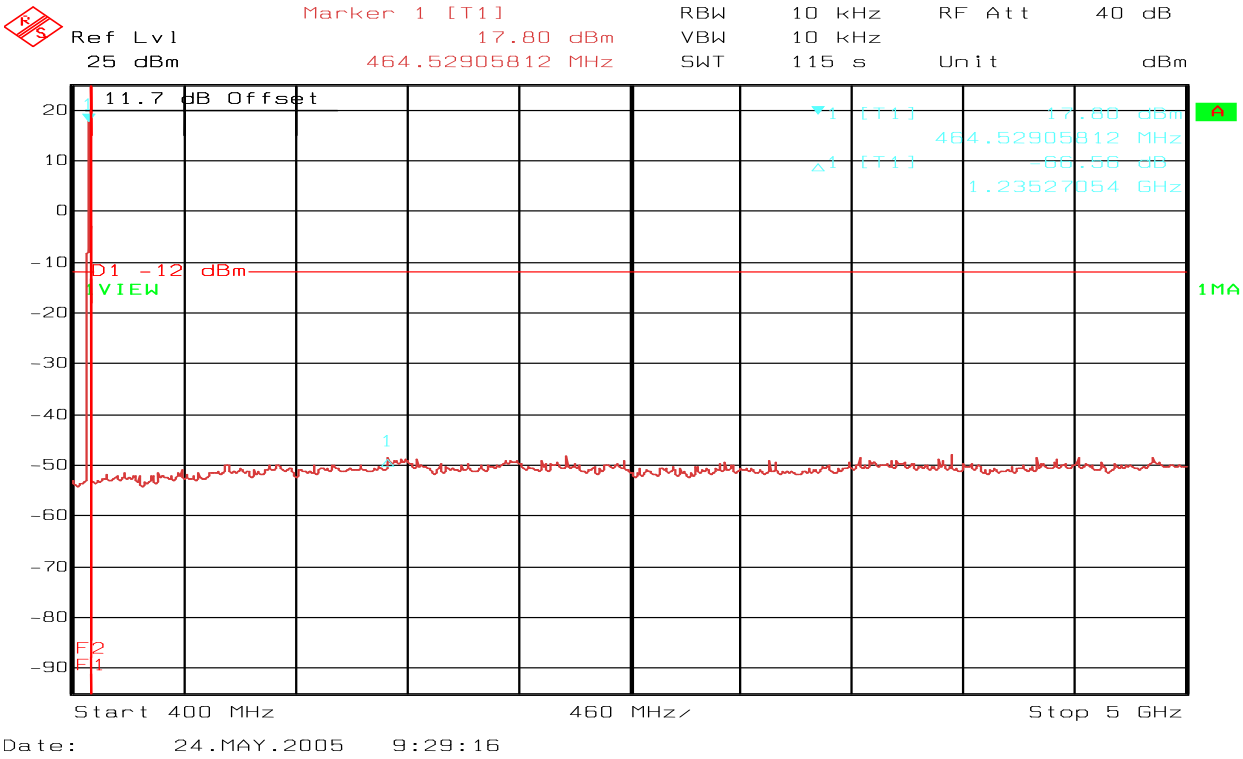
FCC2 - 0 °C , 7.2 Vdc - Upper frequency 470MHz –Conducted power +12.17 dBm



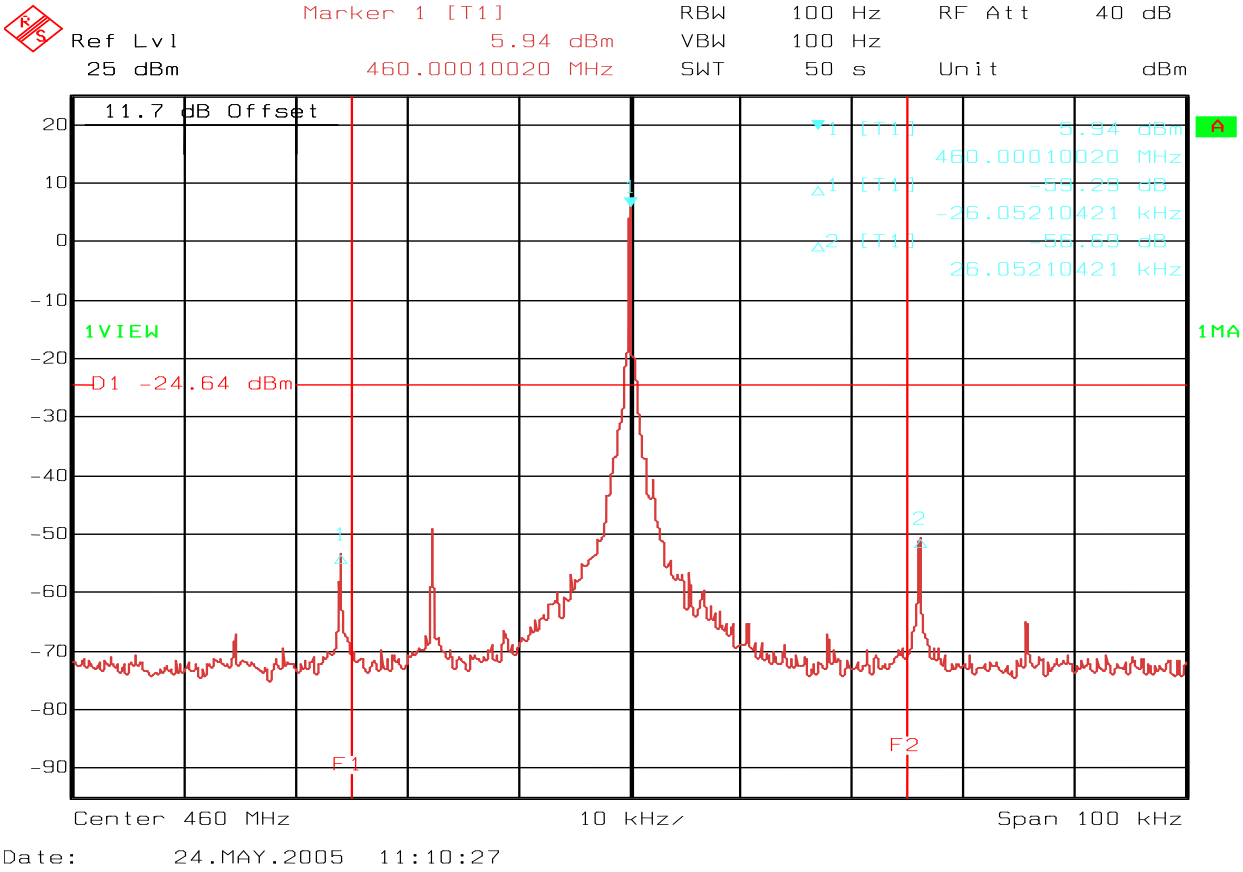
FCC2 - 0 °C ,9.1 Vdc - Upper frequency 470MHz –Conducted power +17.90 dBm



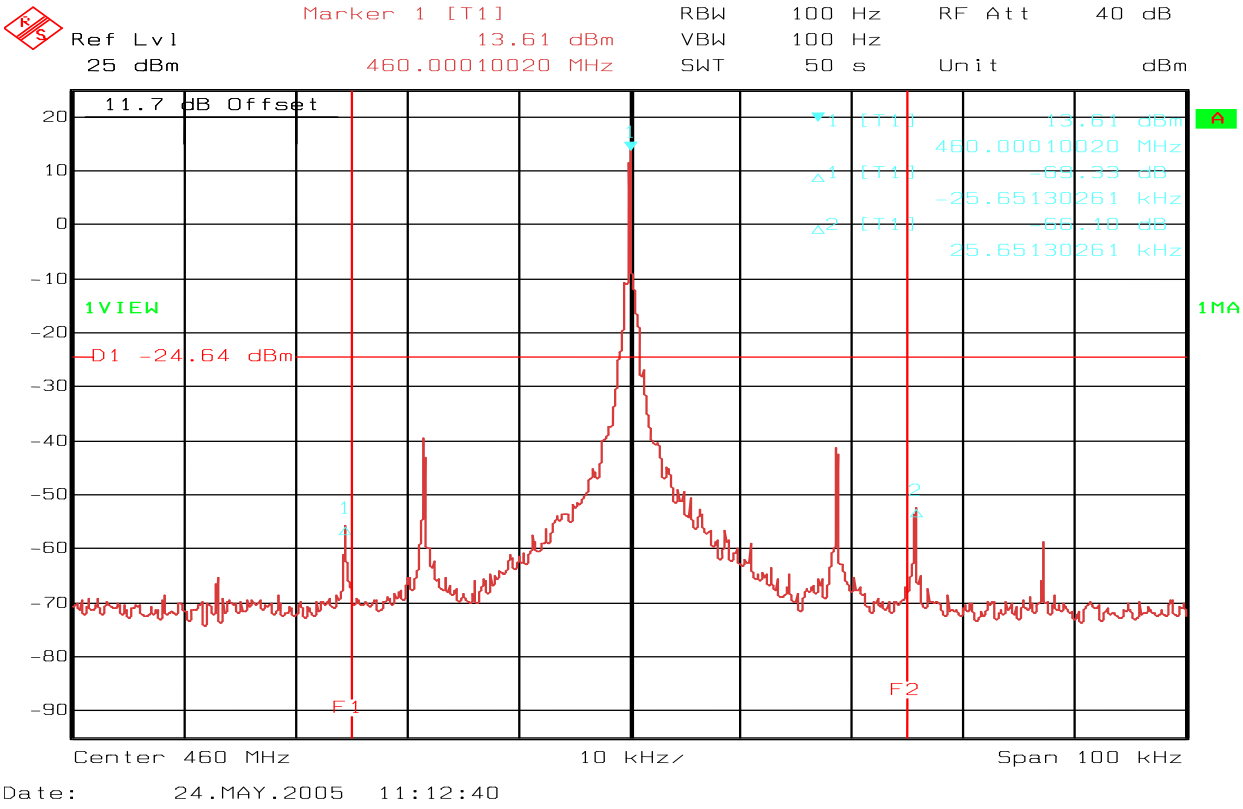
FCC2 - 0 °C , 9.1 Vdc - Upper frequency 470MHz –Scan from 9kHz to 500 Mhz



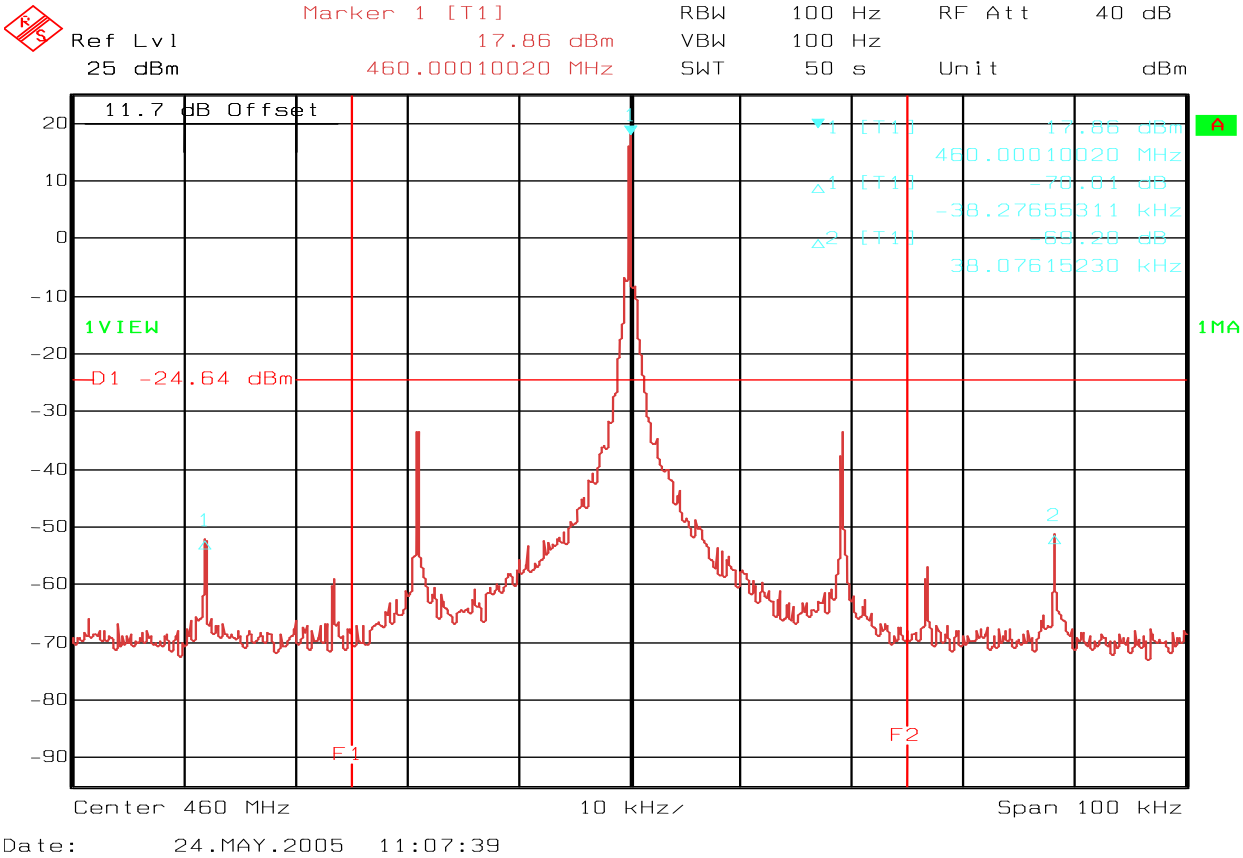
FCC2 - 0 °C , 9.1 Vdc - Upper frequency 470MHz –Scan from 400 MHz to 5GHz



FCC2 - 10 °C , 6.0 Vdc - Lower frequency 460MHz –Conducted power: +5.94 dBm

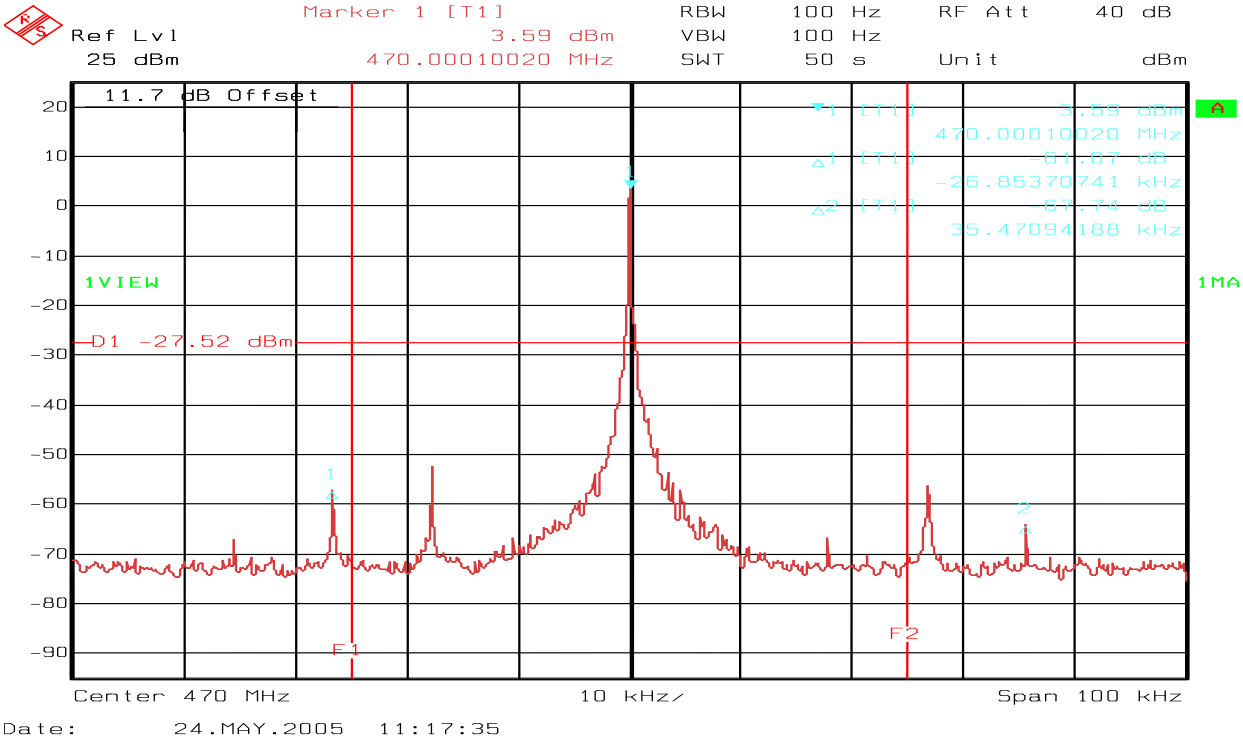


FCC2 - 10 °C , 7.2 Vdc - Lower frequency 460MHz –Conducted power: +13.61 dBm

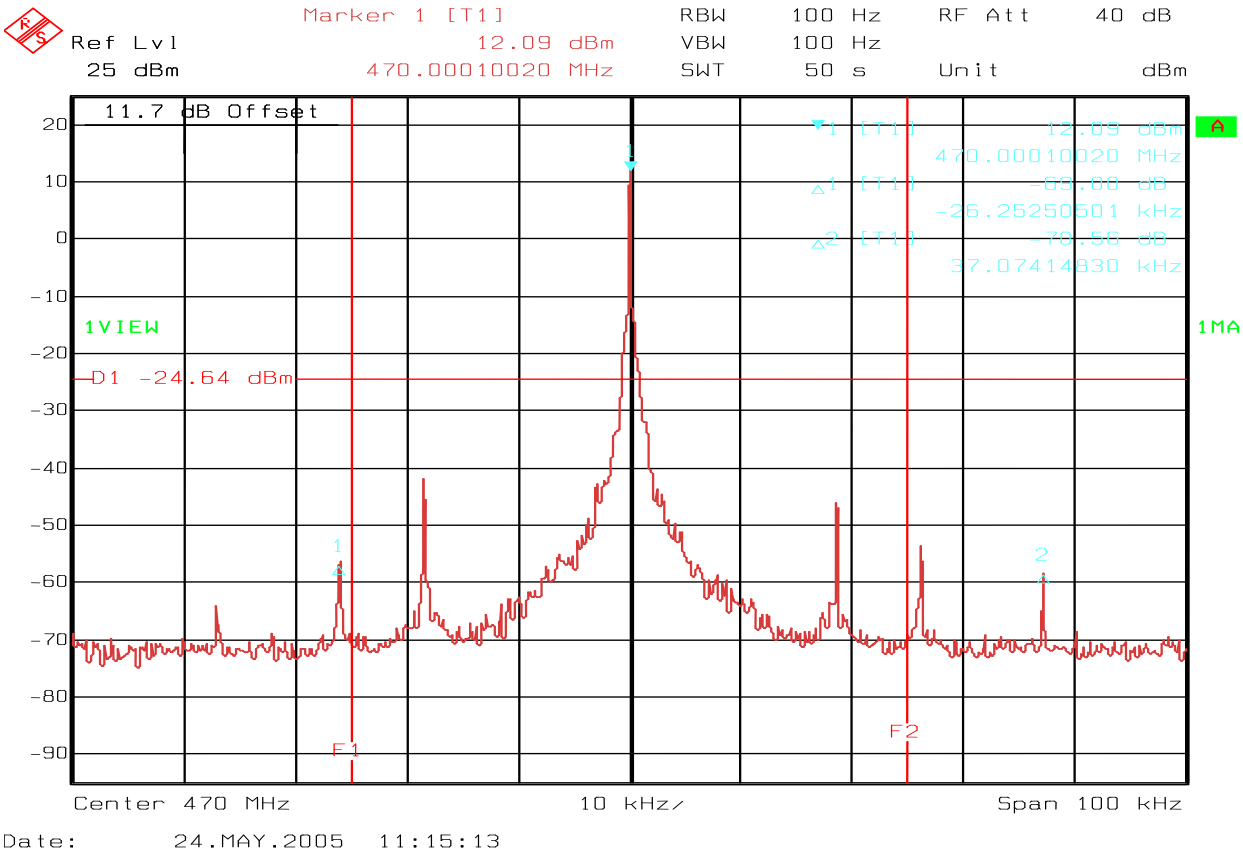


FCC2 - 10 °C , 9.1 Vdc - Lower frequency 460MHz –Conducted power: +17.85 dBm

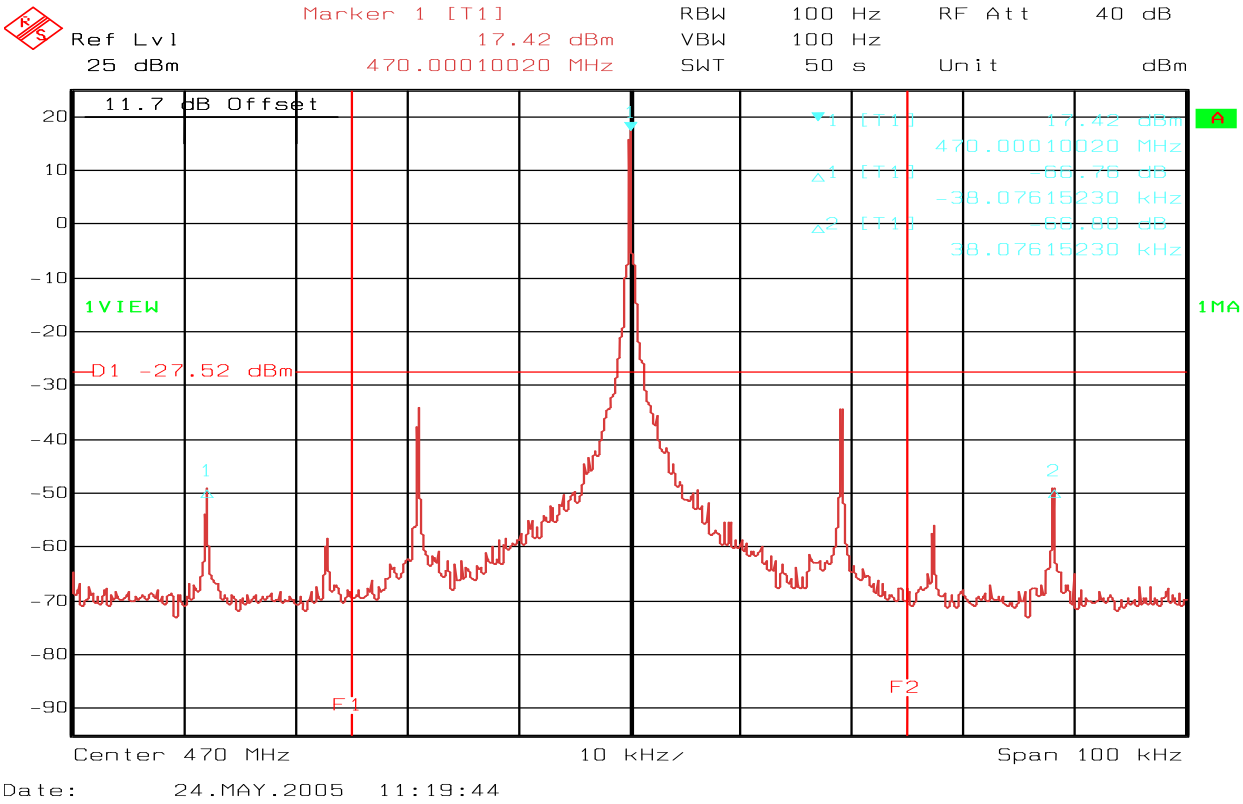
Nemko Comlab
Gåsevikveien 8, Kjeller, Norway
mailto:post@comlab.no



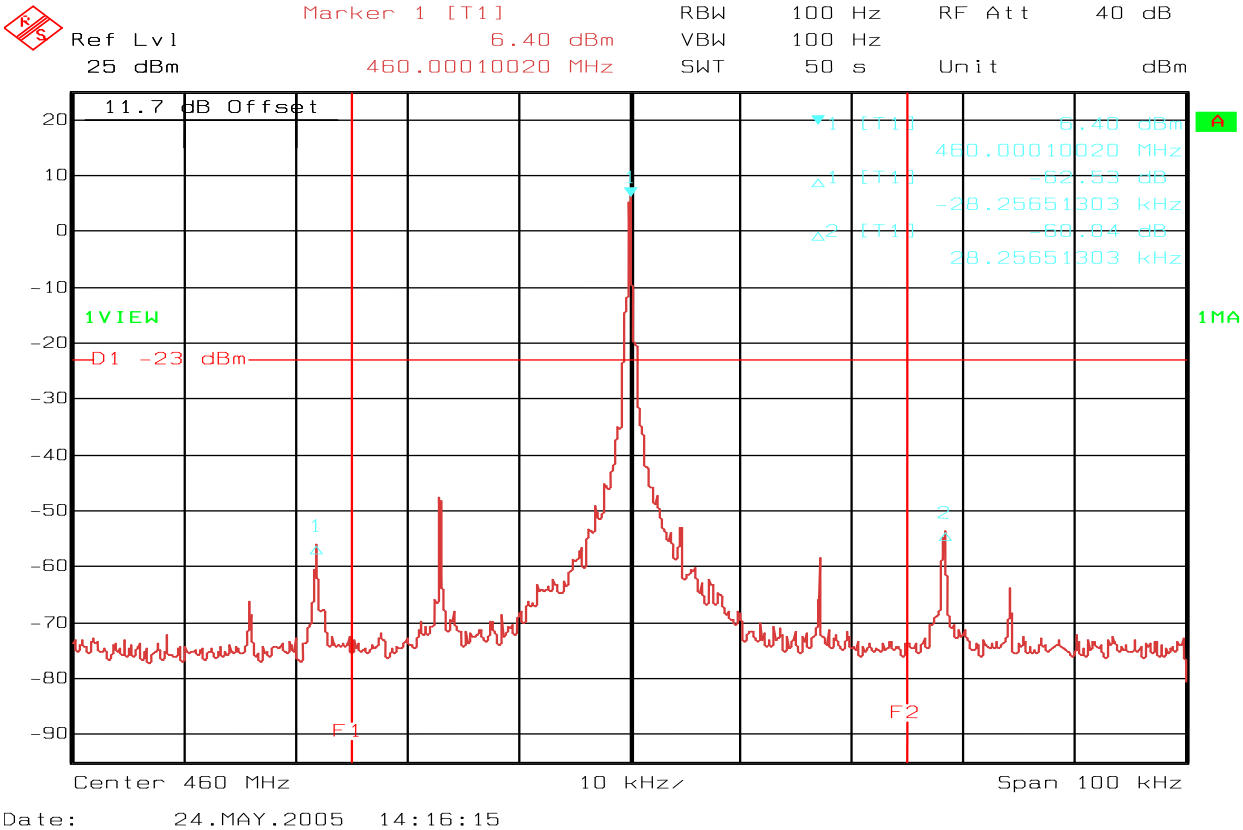
FCC2 - 10 °C , 6.0 Vdc - Upper frequency 470MHz –Conducted power: +3.59 dBm



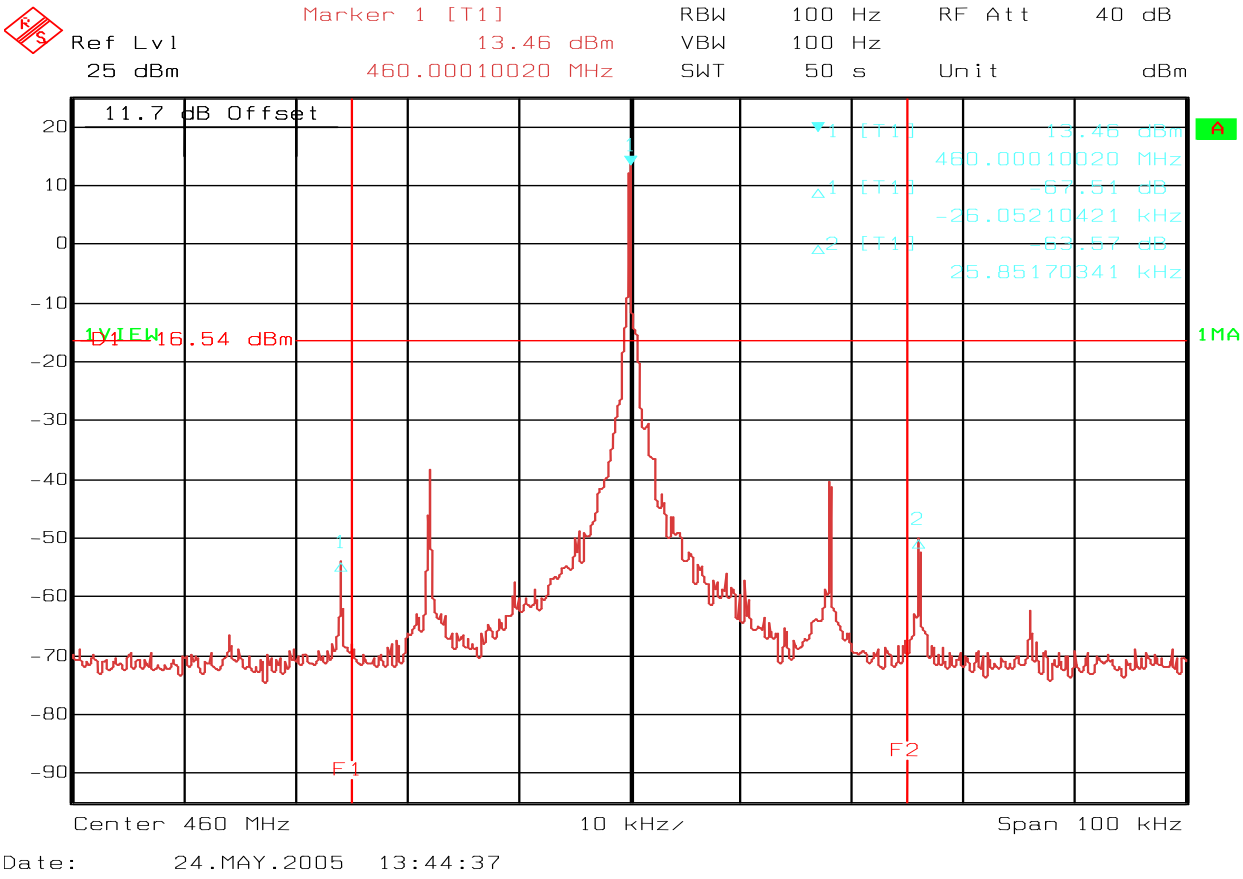
FCC2 - 10 °C , 7.2 Vdc - Upper frequency 470MHz –Conducted power: +12.09 dBm



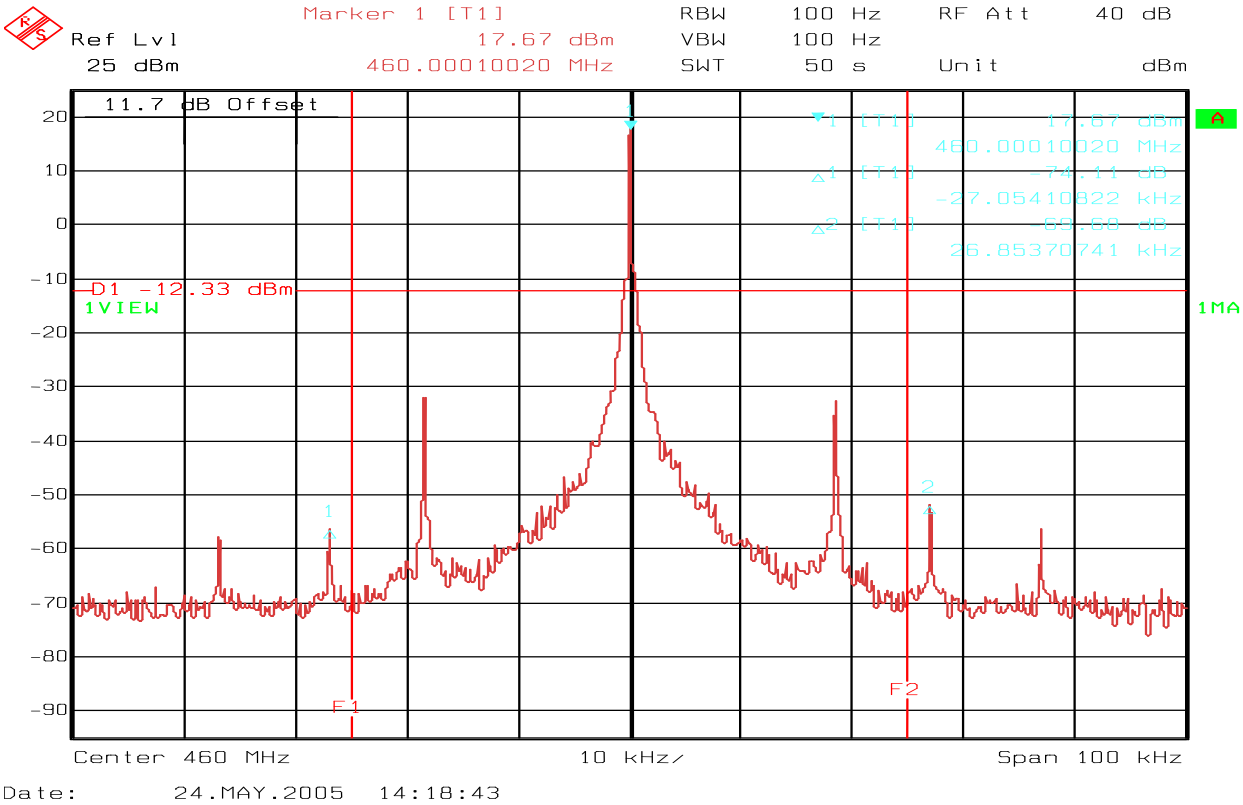
FCC2 - 10 °C , 9.1 Vdc - Upper frequency 470MHz –Conducted power: +17.42 dBm



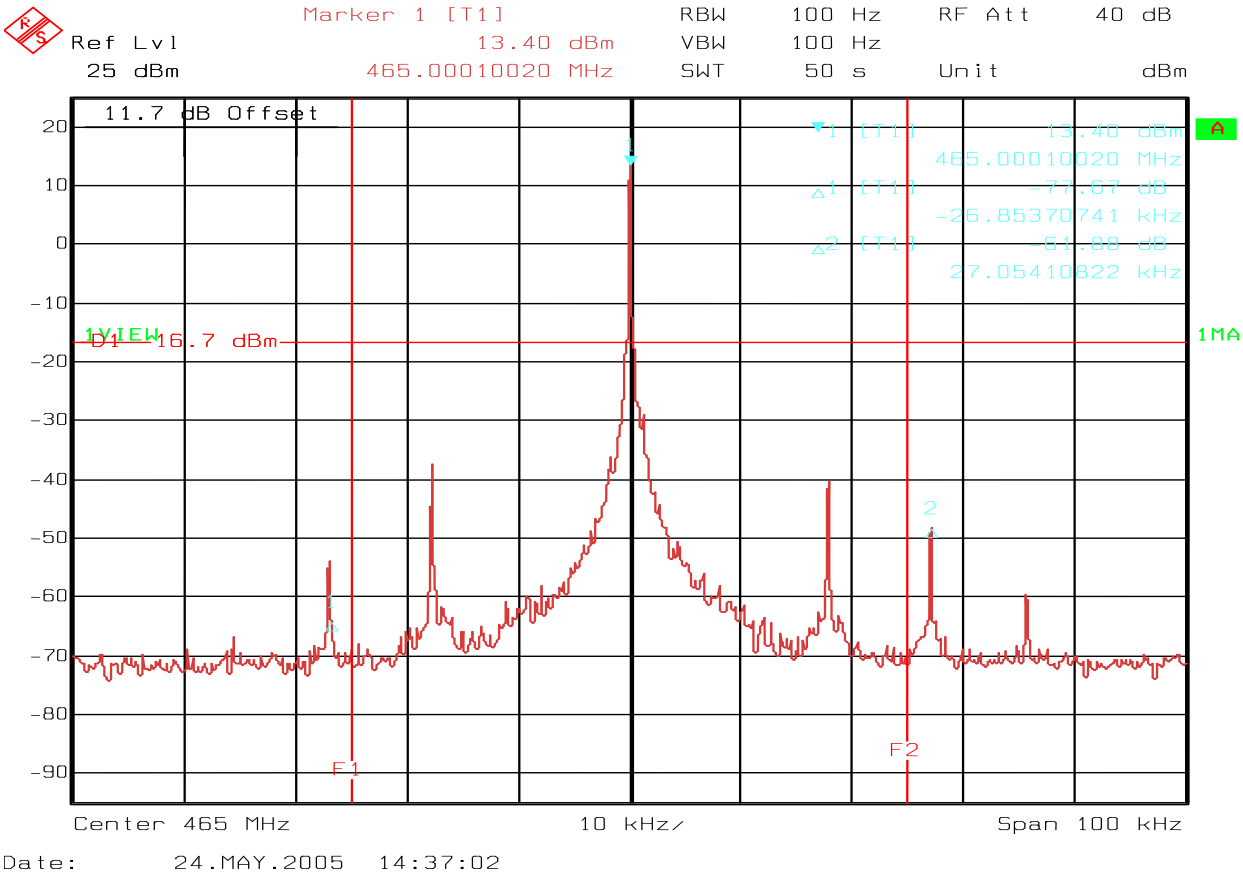
FCC2 - 20 °C , 6.0 Vdc - Lower frequency 460MHz –Conducted power: +6.40 dBm



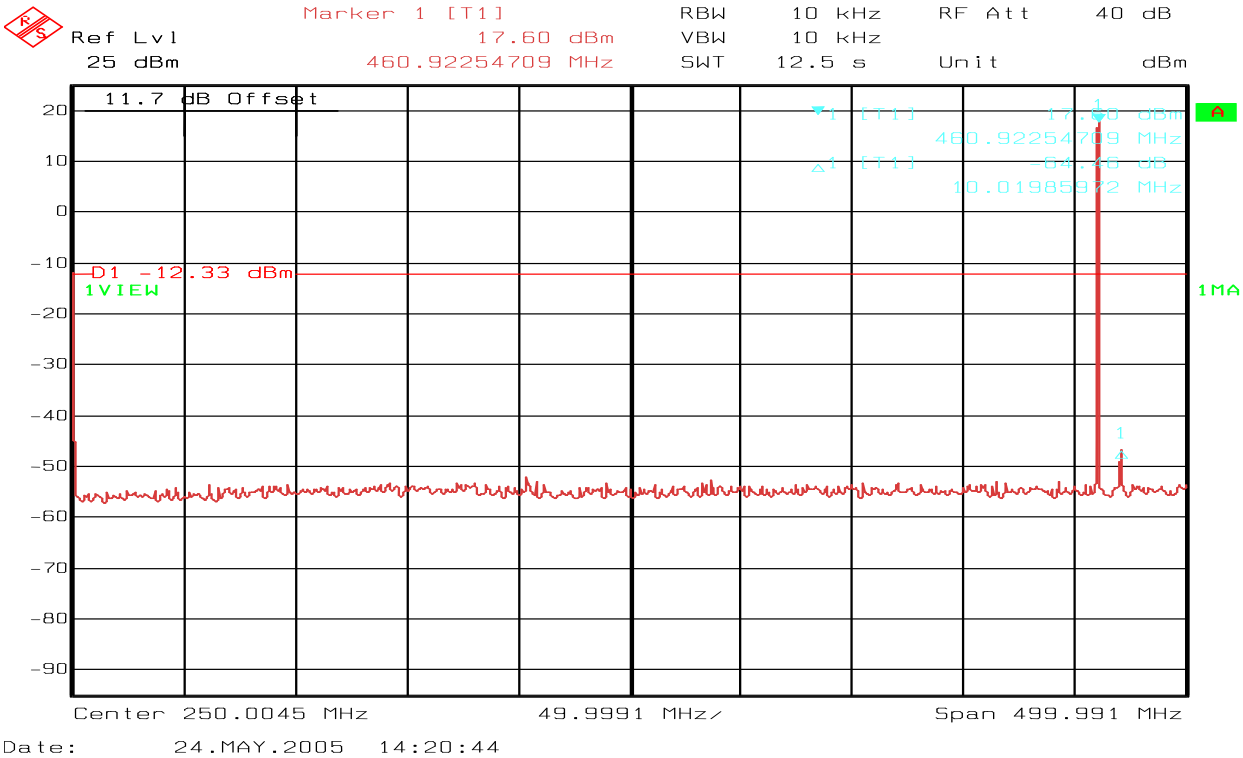
FCC2 - 20 °C , 7.2 Vdc - Lower frequency 460MHz –Conducted power: +13.46 dBm



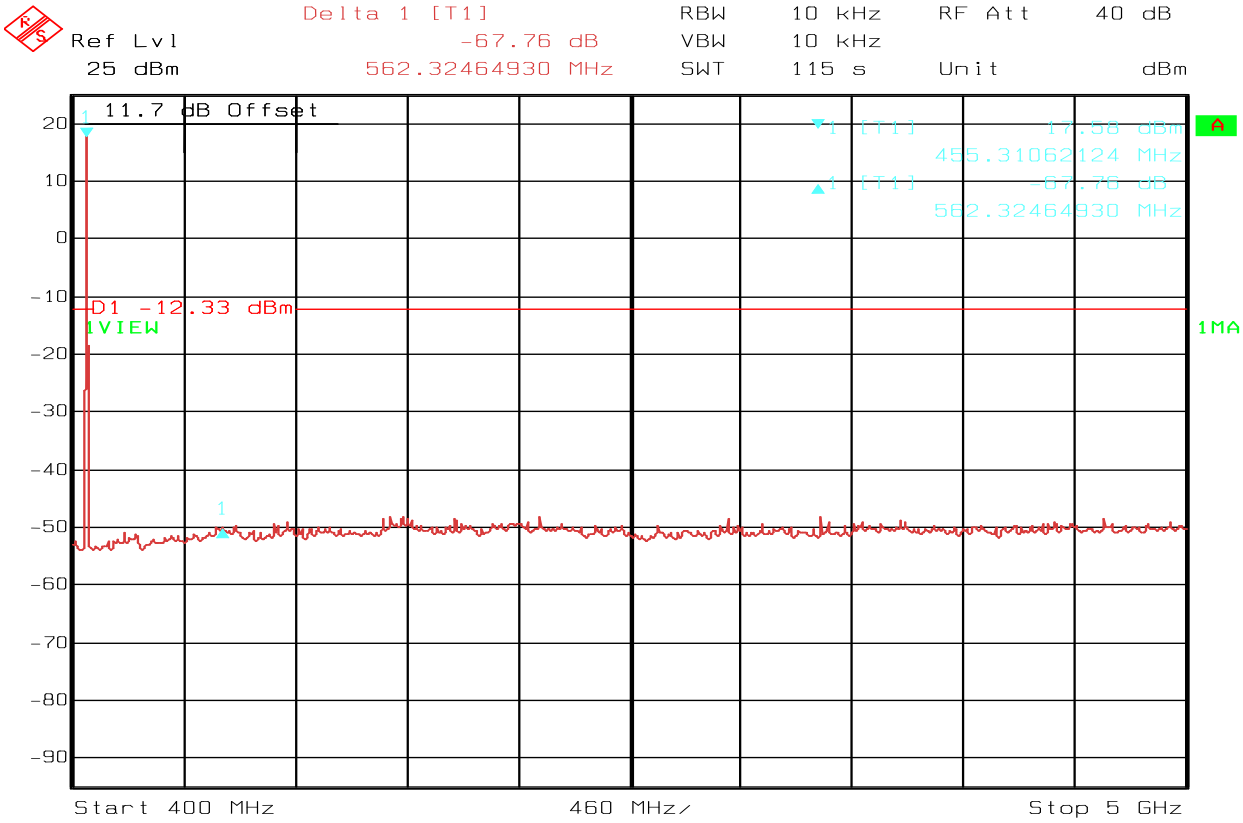
FCC2 - 20 °C , 9.1 Vdc - Lower frequency 460MHz –Conducted power: +17.67 dBm



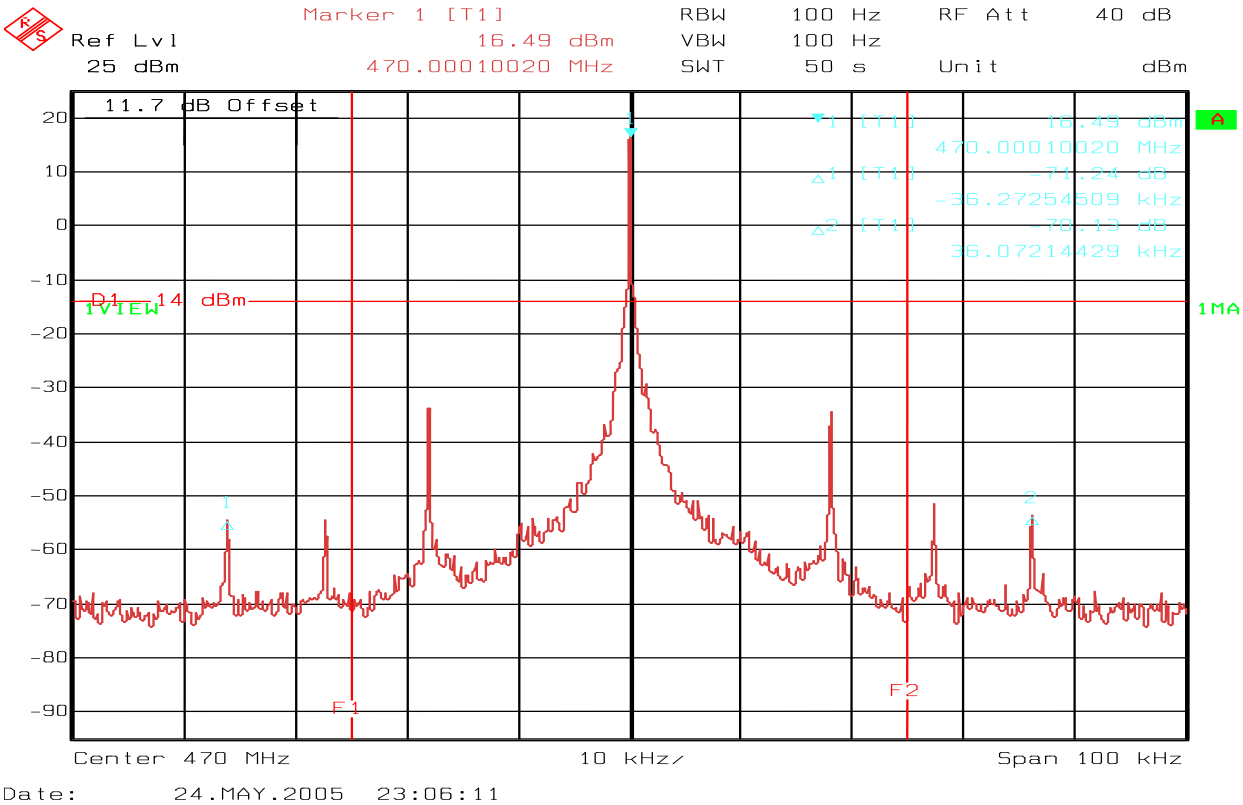
FCC2 - 20 °C , 7.2 Vdc - Middle frequency 465MHz –Conducted power: +13.40 dBm



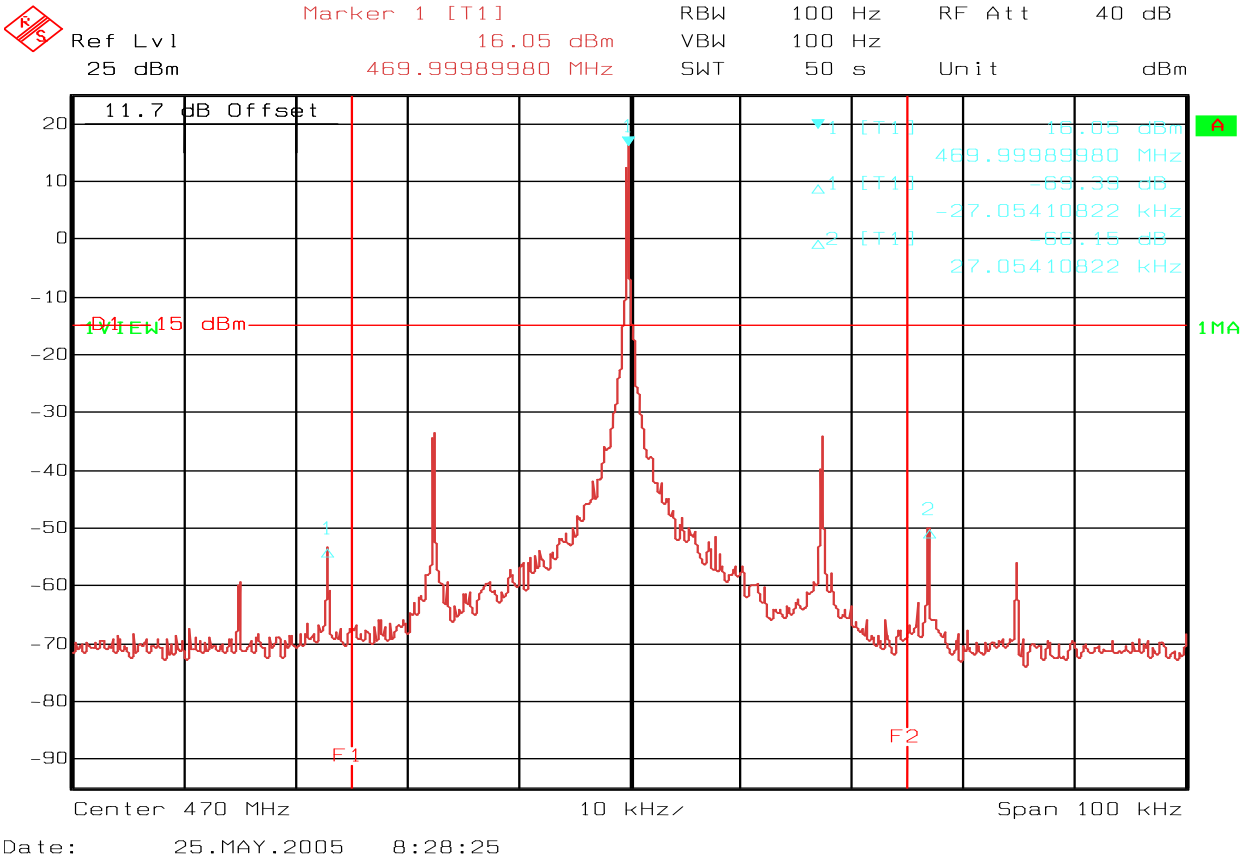
FCC2 - 20 °C , 9.1 Vdc - Lower frequency 460MHz – Scan 9kHz to 500MHz



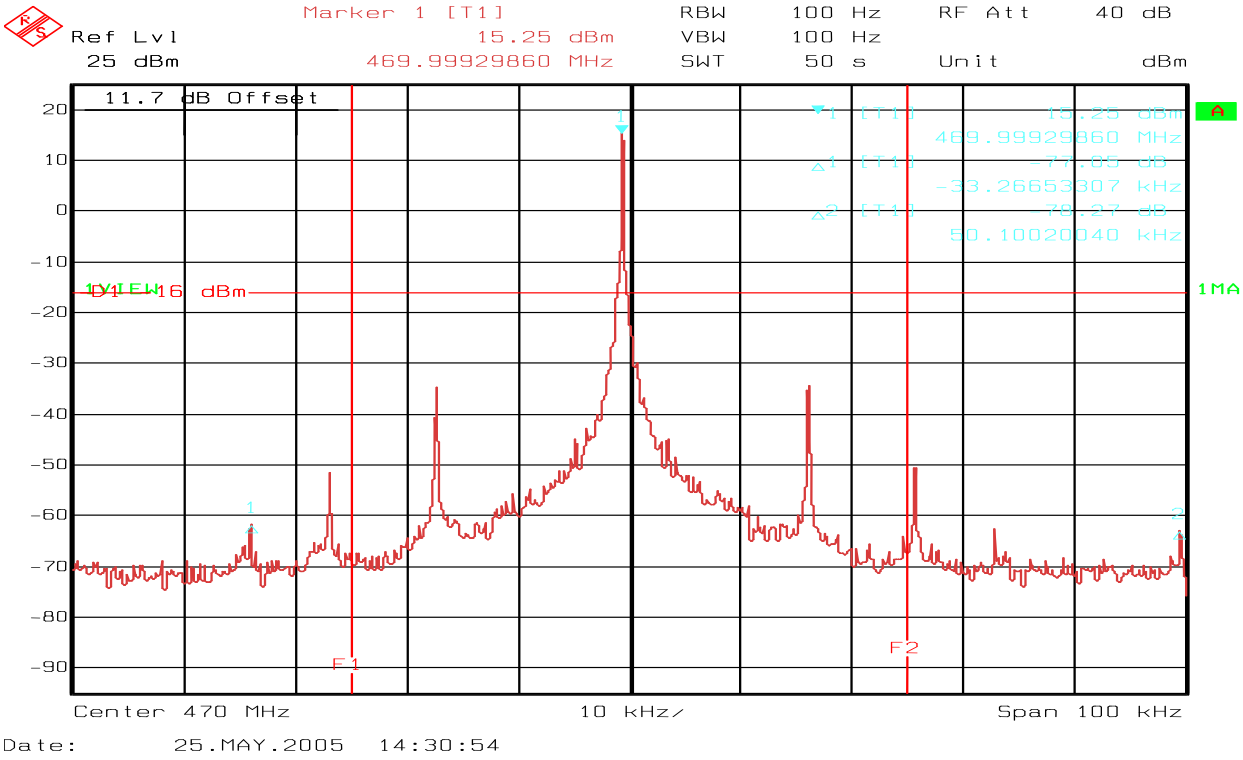
FCC2 - 20 °C , 9.1 Vdc - Lower frequency 460MHz – Scan 400 MHz to 5GHz



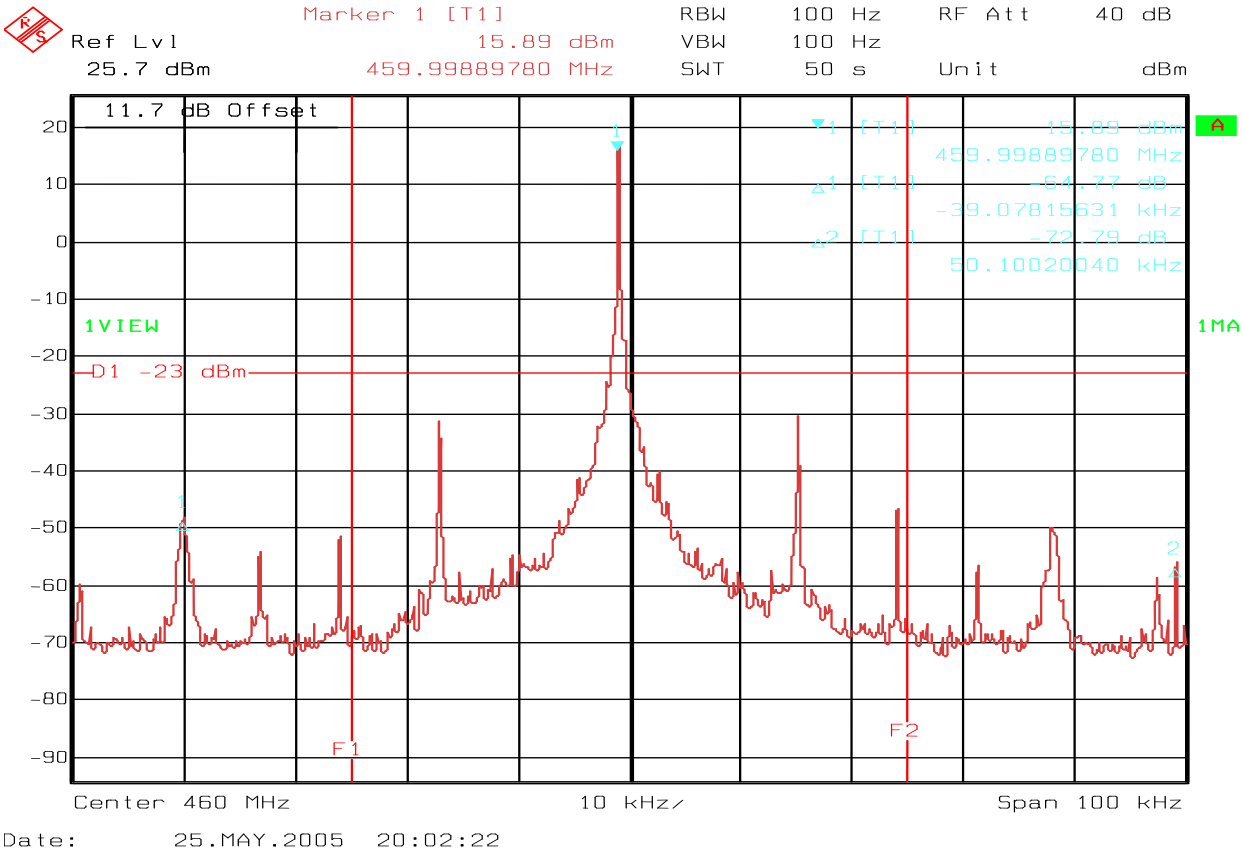
FCC2 - 30 °C , 9.1 Vdc - Upper frequency 470MHz – Conducted power +16.49 dBm



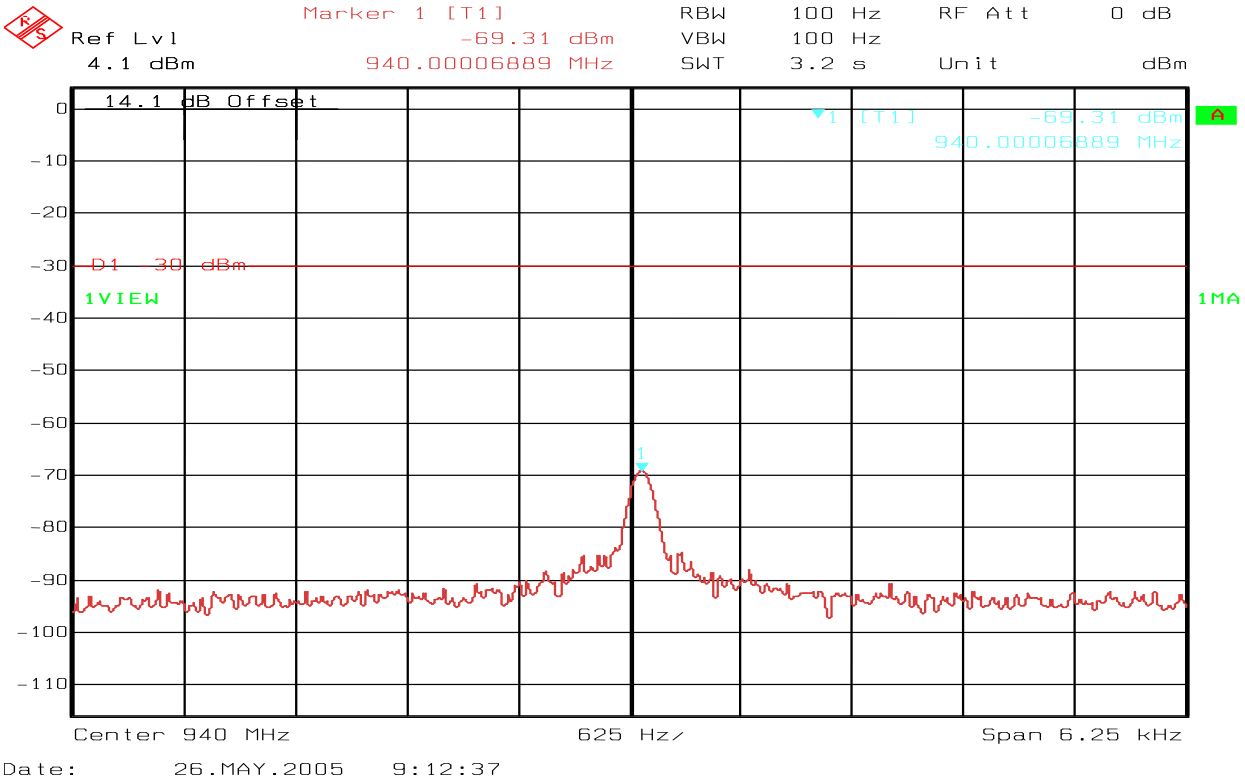
FCC2 - 40 °C , 9.1 Vdc - Upper frequency 470MHz – Conducted power +16.05 dBm



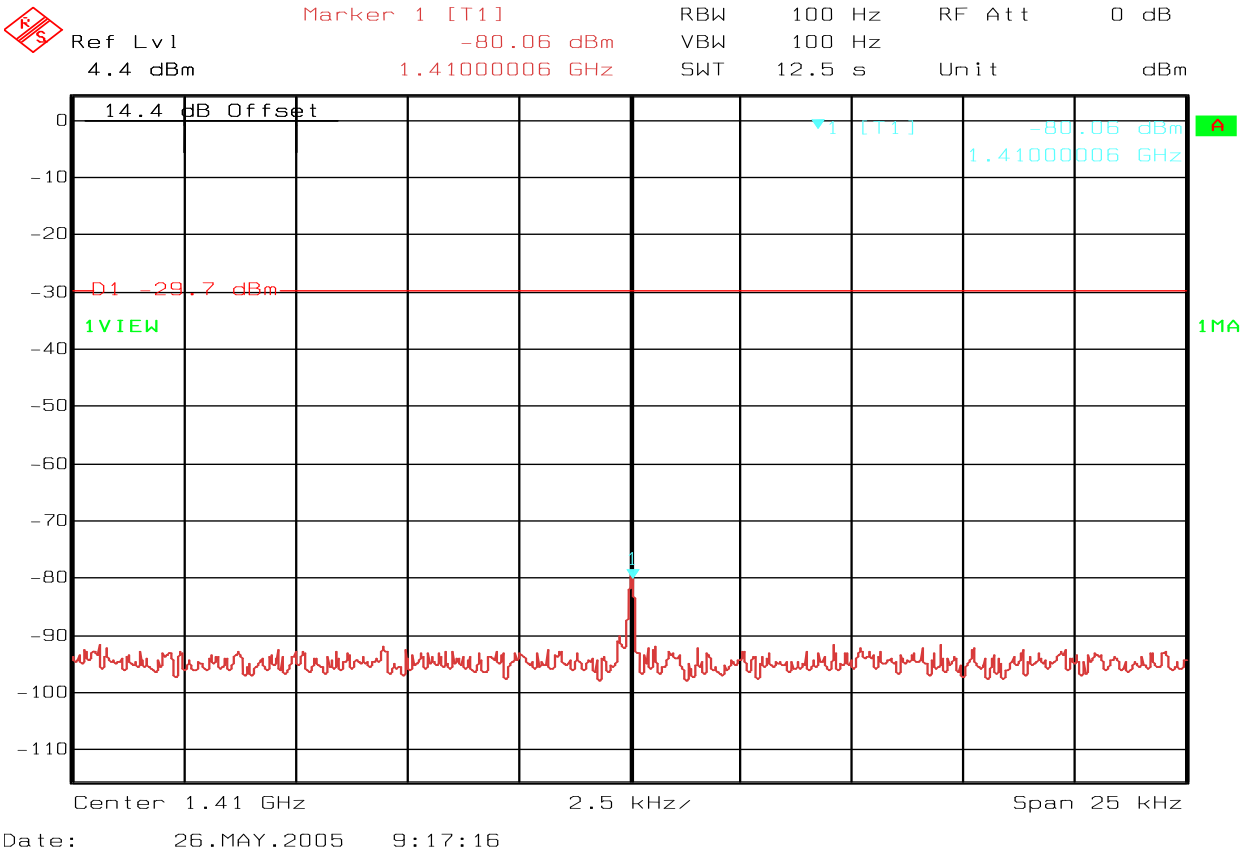
FCC2 - 50 °C , 9.1 Vdc - Upper frequency 470MHz – Conducted power +19.49 dBm



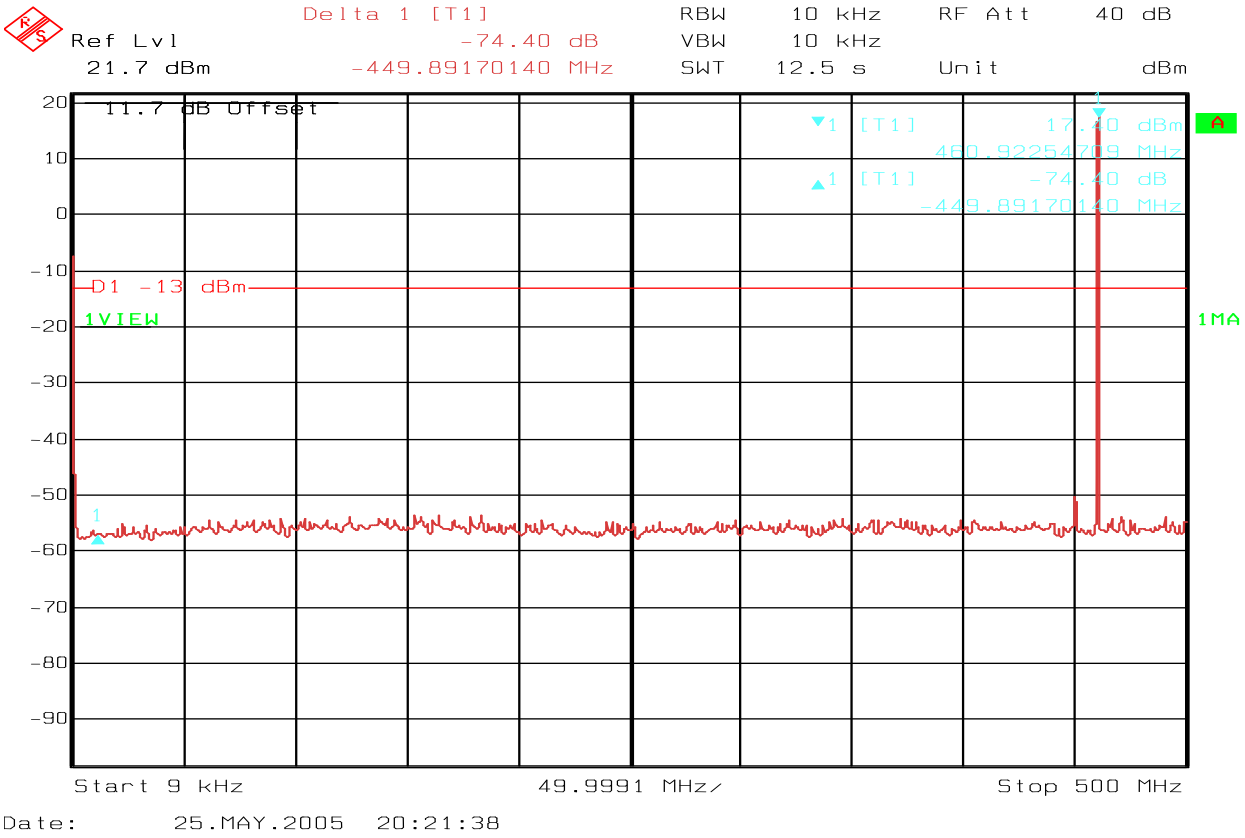
FCC2 - 60 °C , 9.1 Vdc - lower frequency 460MHz – Conducted power +15.89 dBm



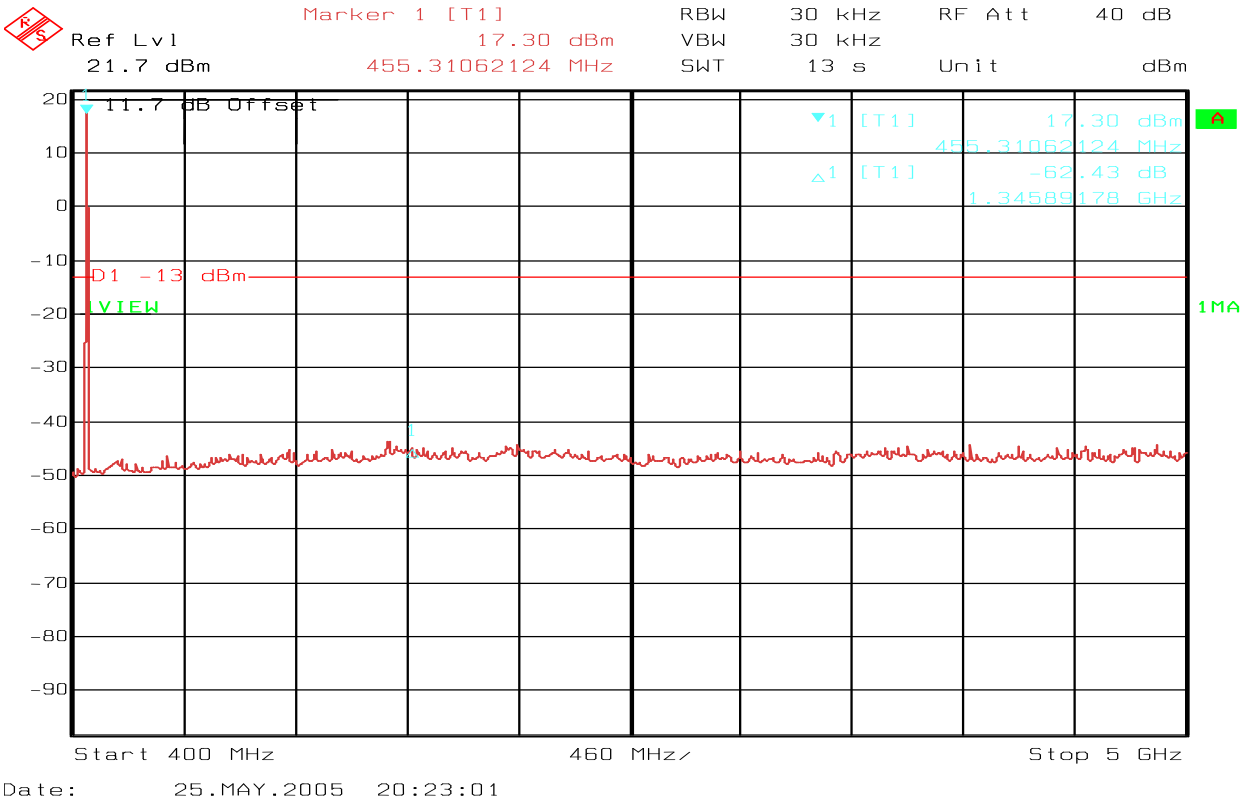
Conducted spurious – 2nd harmonic



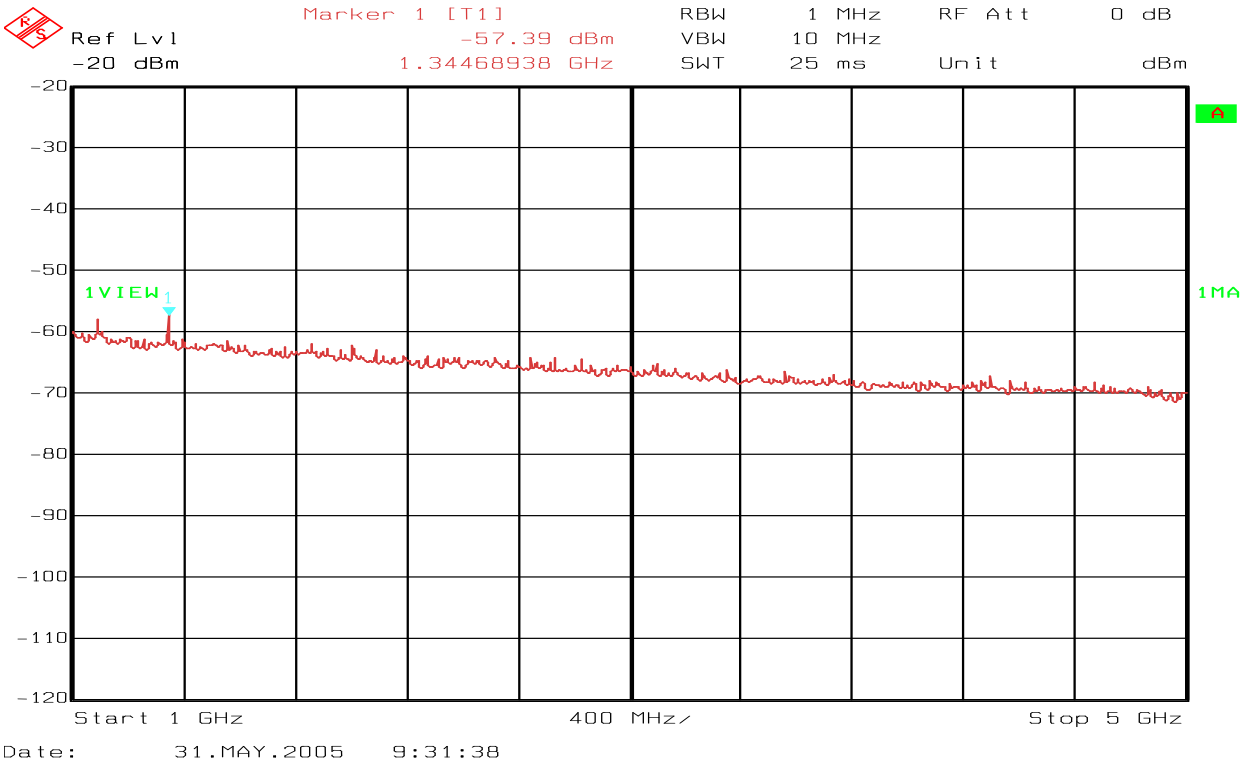
Conducted spurious – 3 rd harmonic



Conducted spurious scan from 9 kHz – 500MHz



Conducted Spurious scan from 400MHz to 5GHz



Radiated spurious (terminated with 50 ohm load)

Nemko Comlab

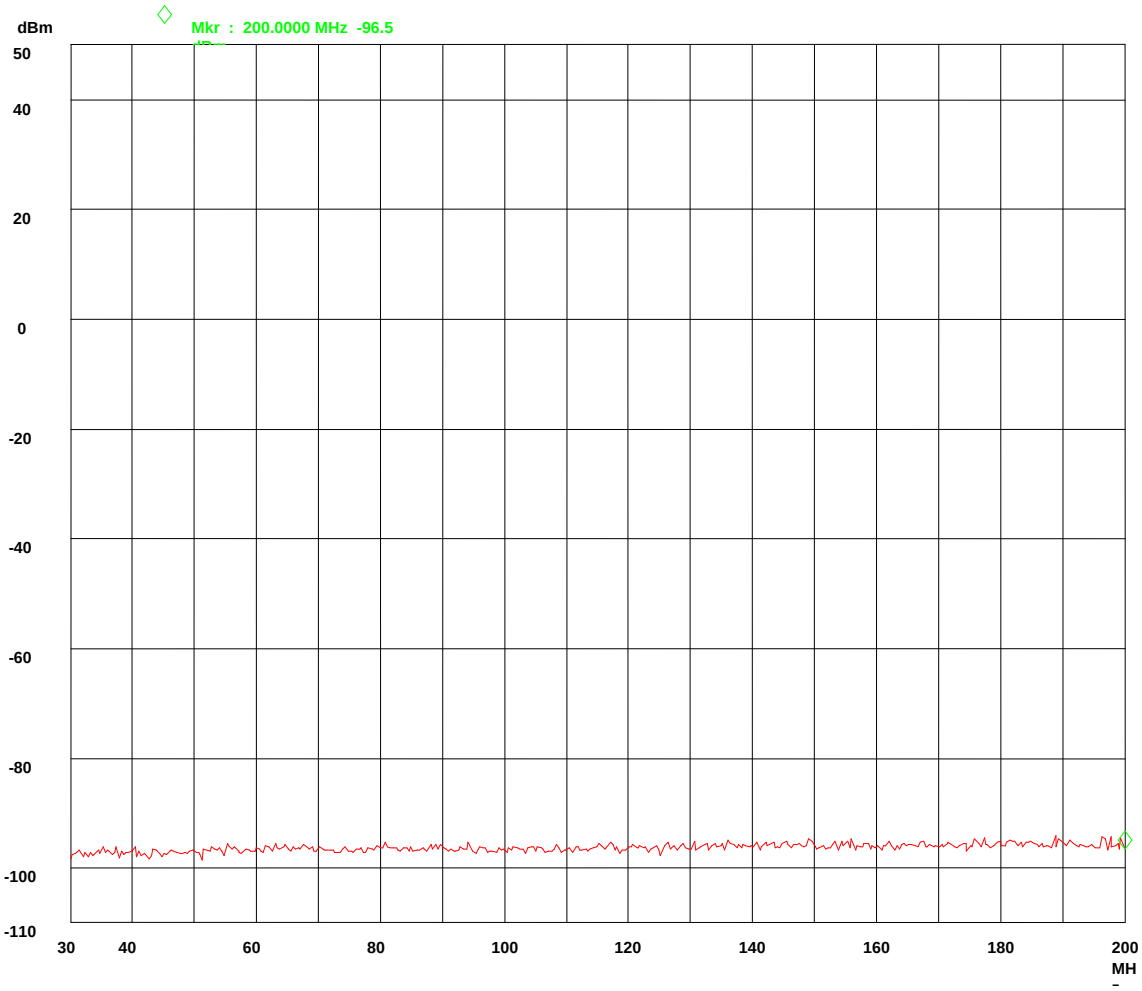
31. May 05 10:28

Peak

EUT:
Manuf **Micro Control**
Op Cond: **10hp**
Operator: **gns**
Test Spec: **FCC part 90**
Comment **FCC1**

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp OpRge
30M	200M	50k	120k	PK	50ms	AUTO	LN ON 60dB



Radiated spurious - HP - 30MHz - 200MHz

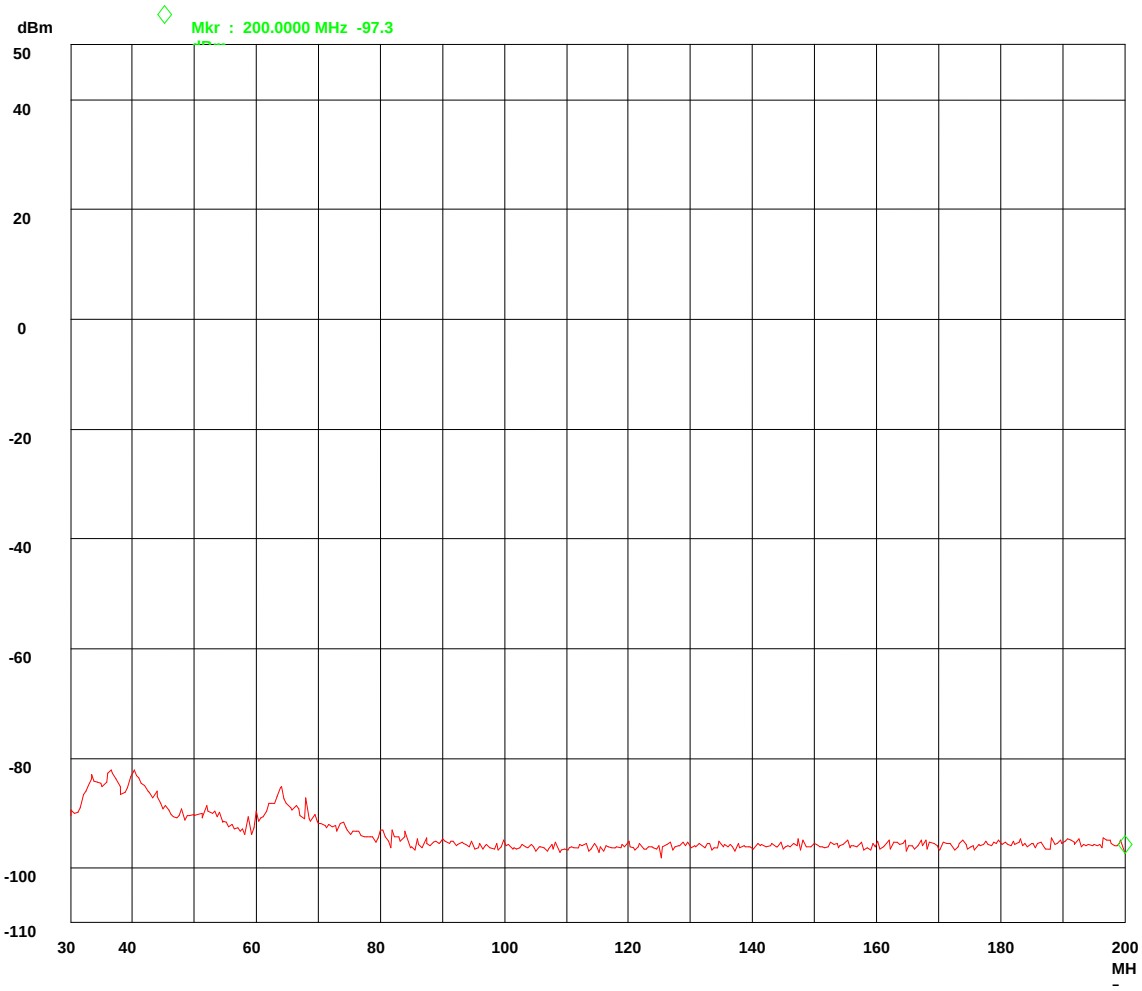
Nemko Comlab
Peak

31. May 05 10:24

EUT:
Manuf **Micro Control**
Op Cond: **10vp**
Operator: **gns**
Test Spec: **FCC part 90**
Comment **FCC1**

Scan Settings (1 Range)
|--------- Frequencies ----------||---------- Receiver Settings ----------|

Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30M	200M	50k	120k	PK	50ms	AUTO	LN ON	60dB



Radated spurious - VP - 30MHz - 200MHz

Nemko Comlab

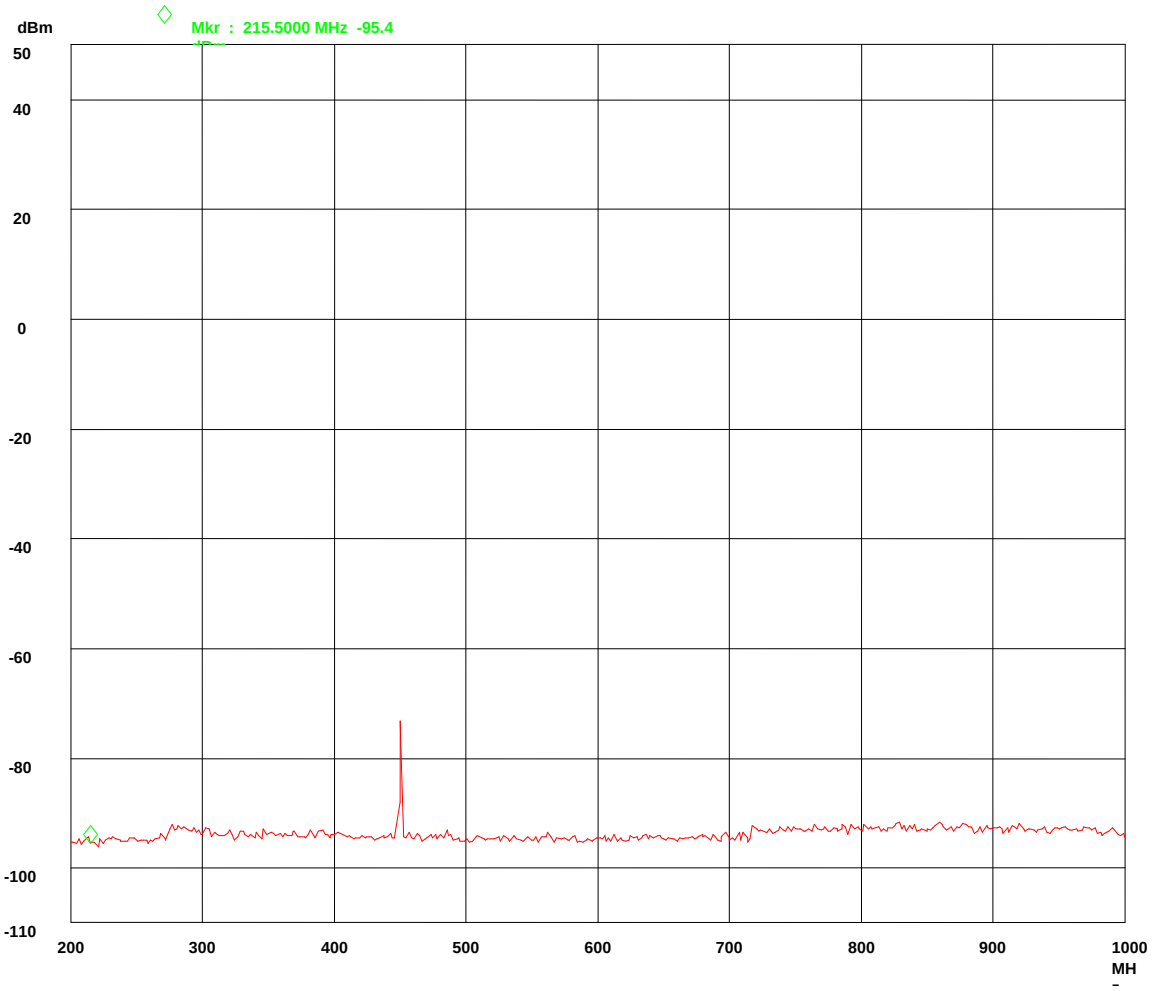
31. May 05 10:10

Peak

EUT:
Manuf **Micro Control**
Op Cond: **10hp**
Operator: **gns**
Test Spec: **FCC part 90**
Comment **FCC1**

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp OpRge
200M	1000M	100k	120k	PK	50ms	AUTO LN ON	60dB



Radiated spurious HP - 200 MHz – 1GHz

Nemko Comlab

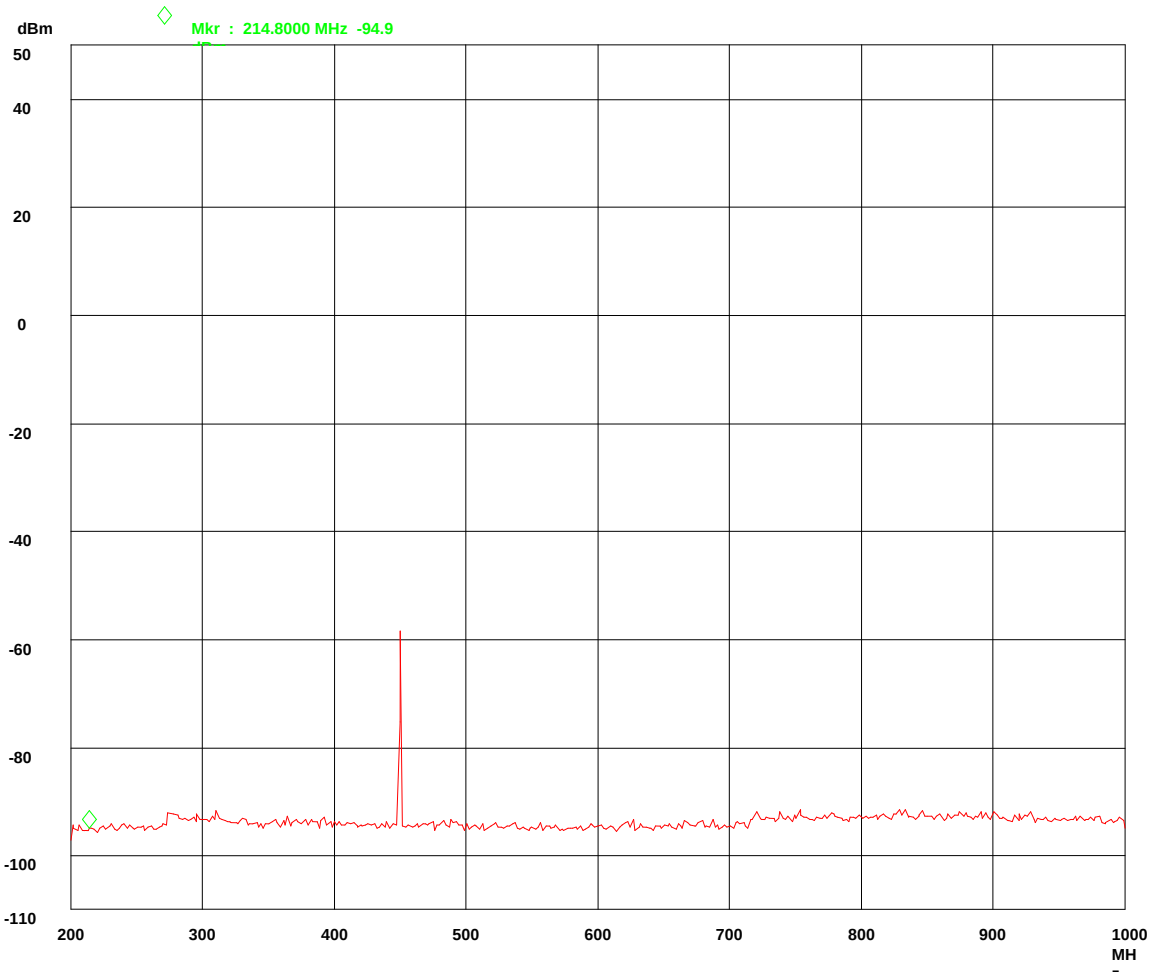
31. May 05 10:01

Peak

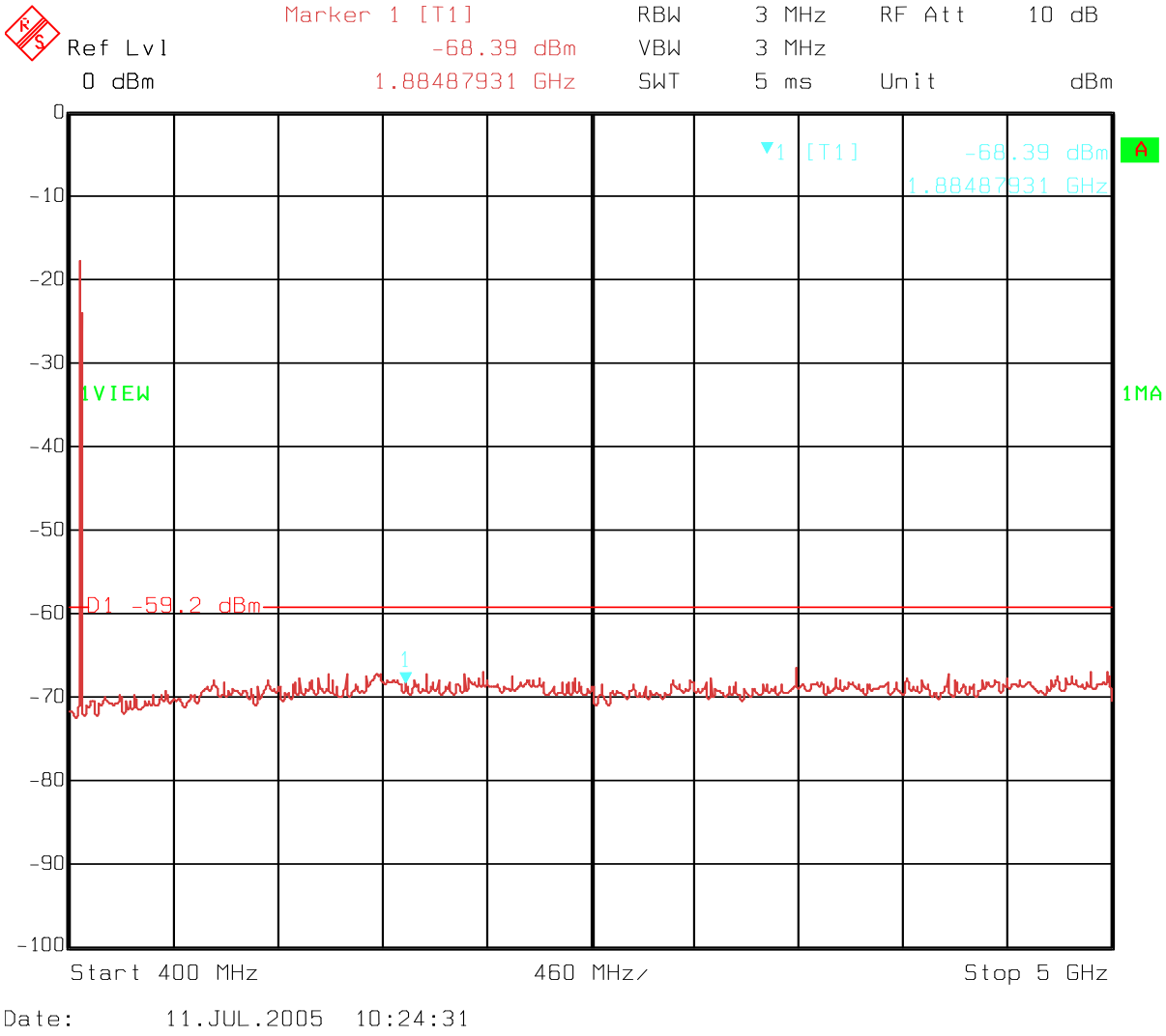
EUT:
Manuf Micro Control
Op Cond: 10vp
Operator: gns
Test Spec: FCC part 90
Comment FCC1
-

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
200M	1000M	100k	120k	PK	50ms	AUTO	LN ON	60dB



Radiated Spurious - VP - 200MHz - 1GHz



Radiated spurious emission with integral antenna (400 MHz – 5GHz)

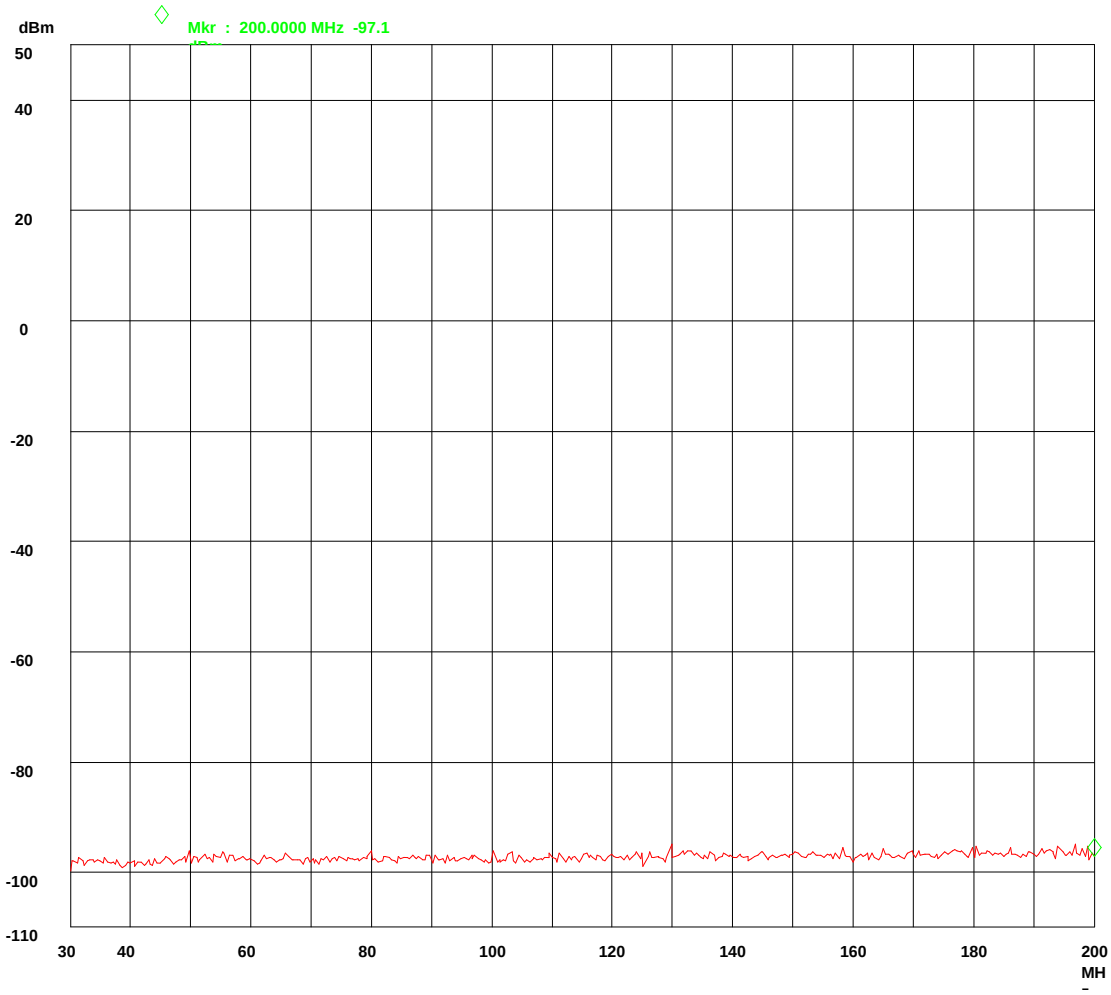
Nemko Comlab
Peak

11. Jul 05

EUT:
Manuf Cavotec Microcontrol
Op Cond: 10m
Operator:
Test Spec: fcc 90
Comment r

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30M	200M	50k	120k	PK	50ms	AUTO	LN ON	60dB



Spurious - 30 MHz to 200MHz (HP) in receiver mode

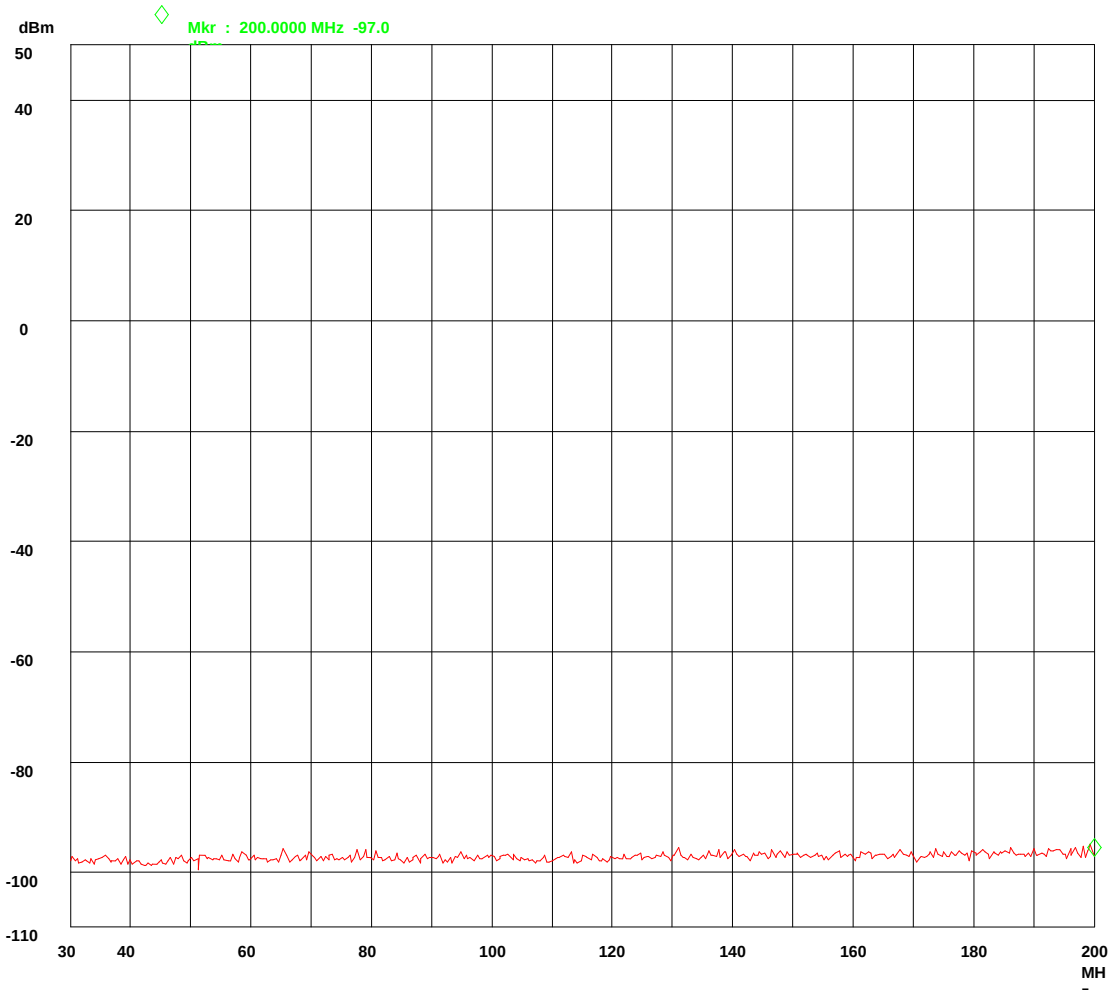
Nemko Comlab
Peak

11. Jul 05

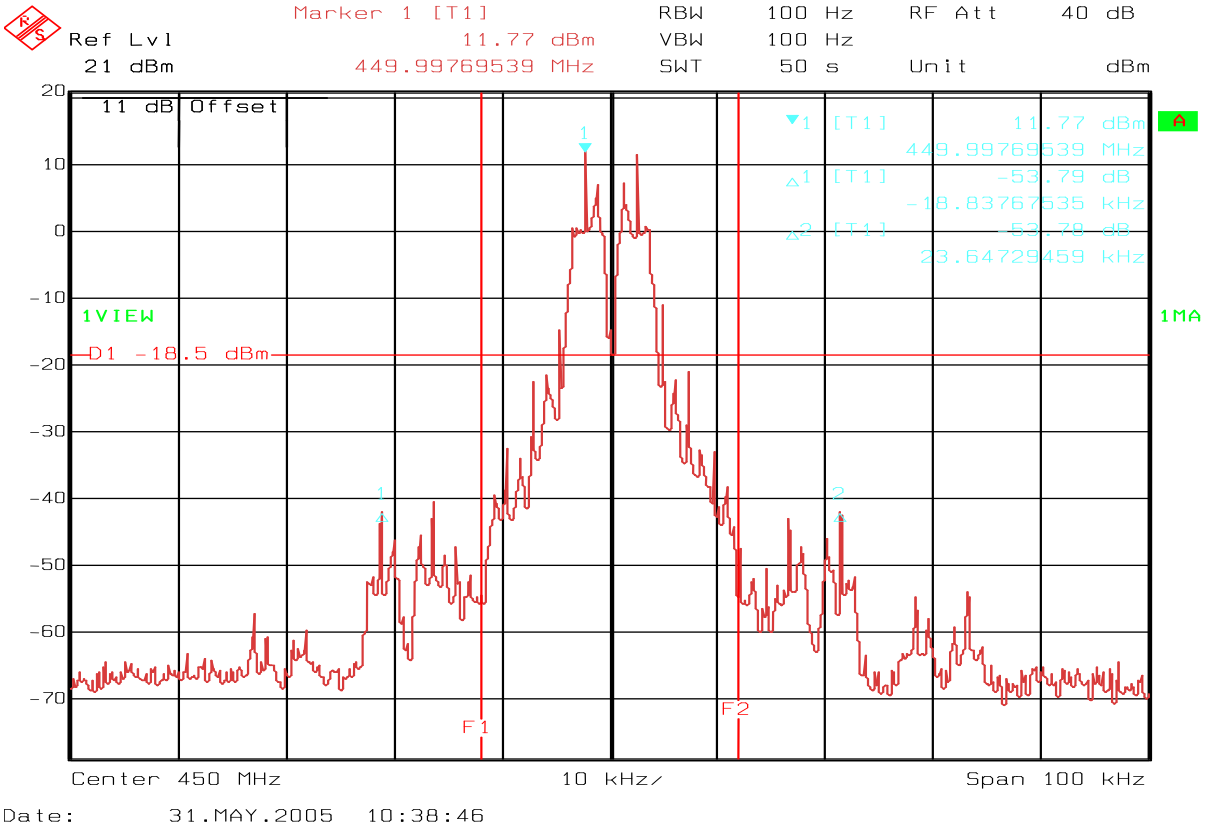
EUT:
Manuf Cavotec Microcontrol
Op Cond: 10m vp
Operator: gns
Test Spec: fcc 90
Comment r

Scan Settings (1 Range)

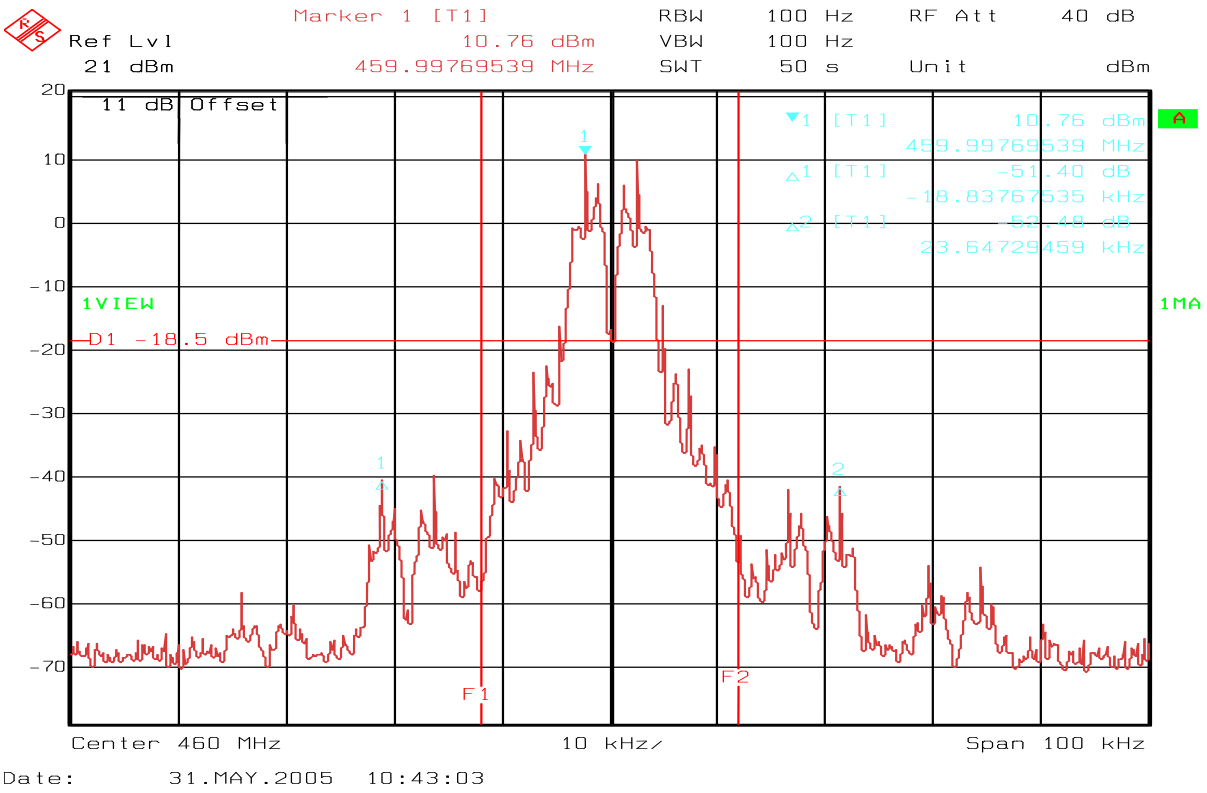
Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30M	200M	50k	120k	PK	50ms	AUTO	LN ON	60dB



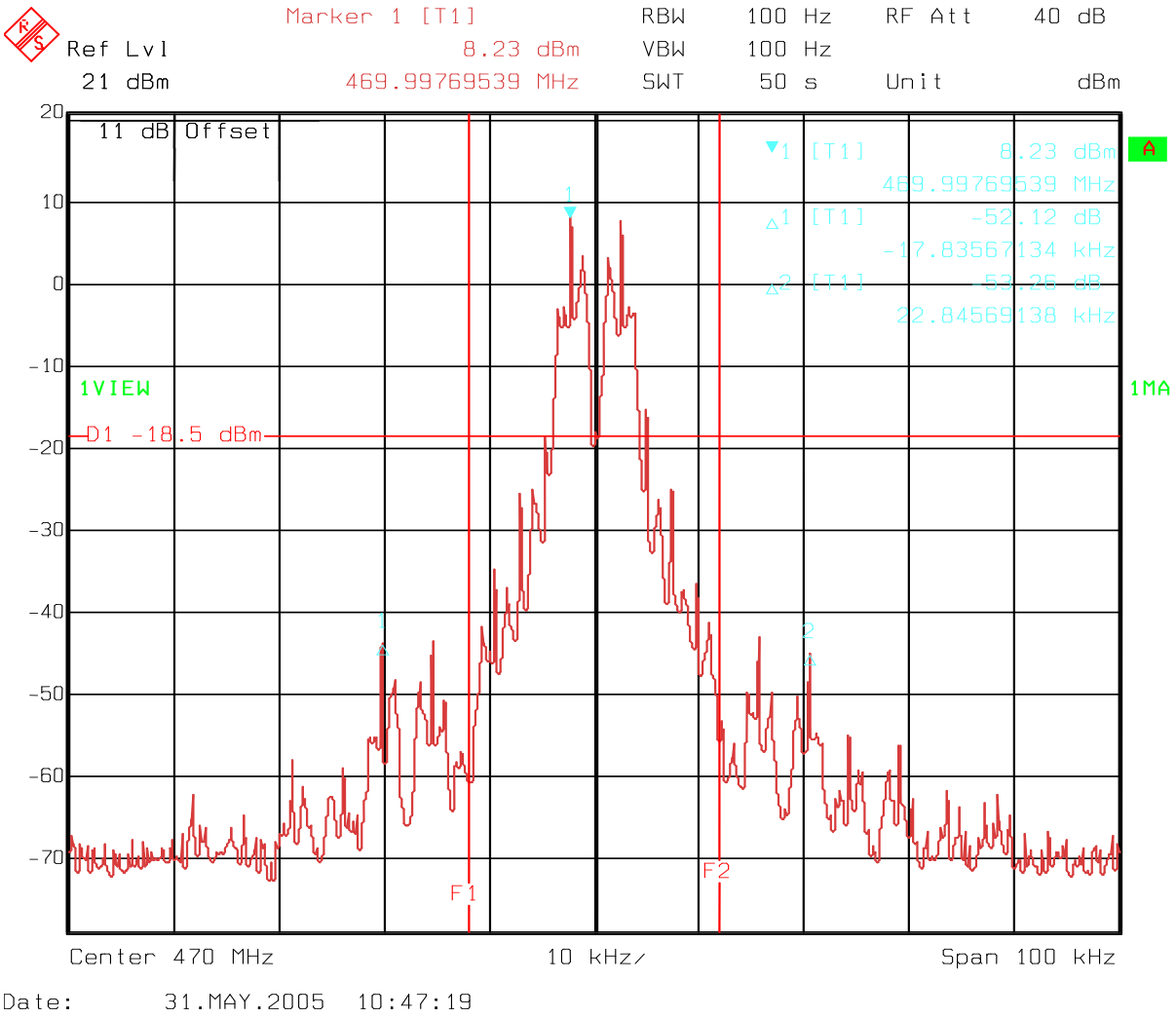
Spurious - 30MHz to 200MHz (VP) – In receiver mode



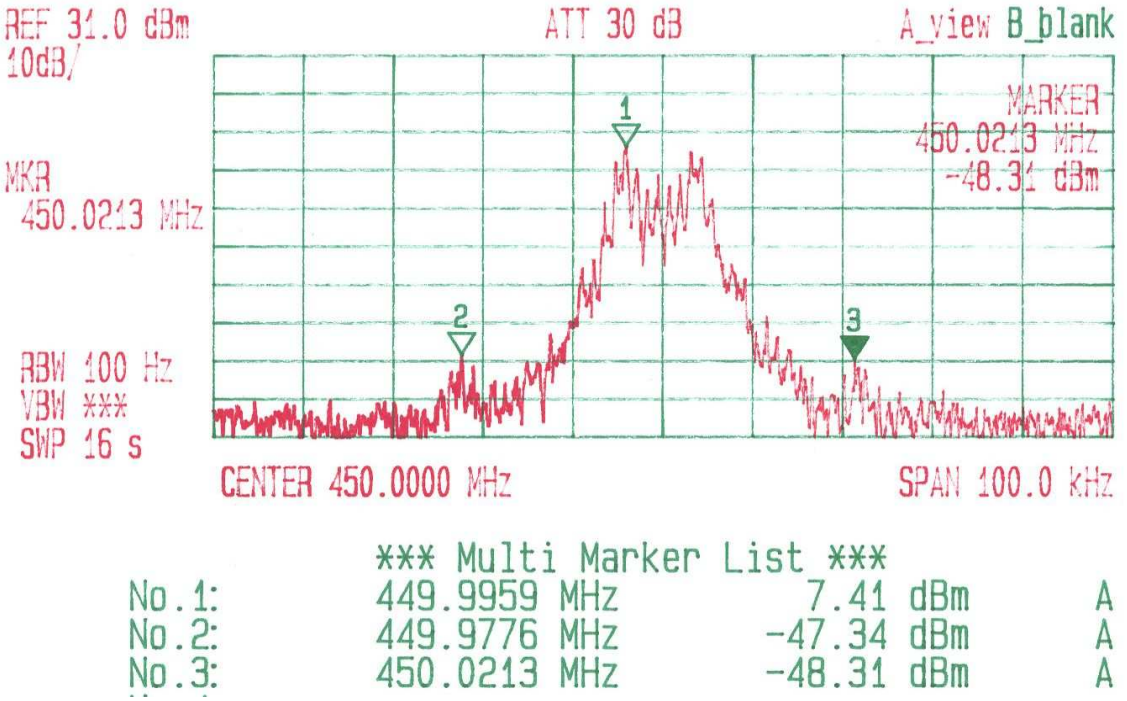
FCC1 – Modulated spectrum – 450MHz



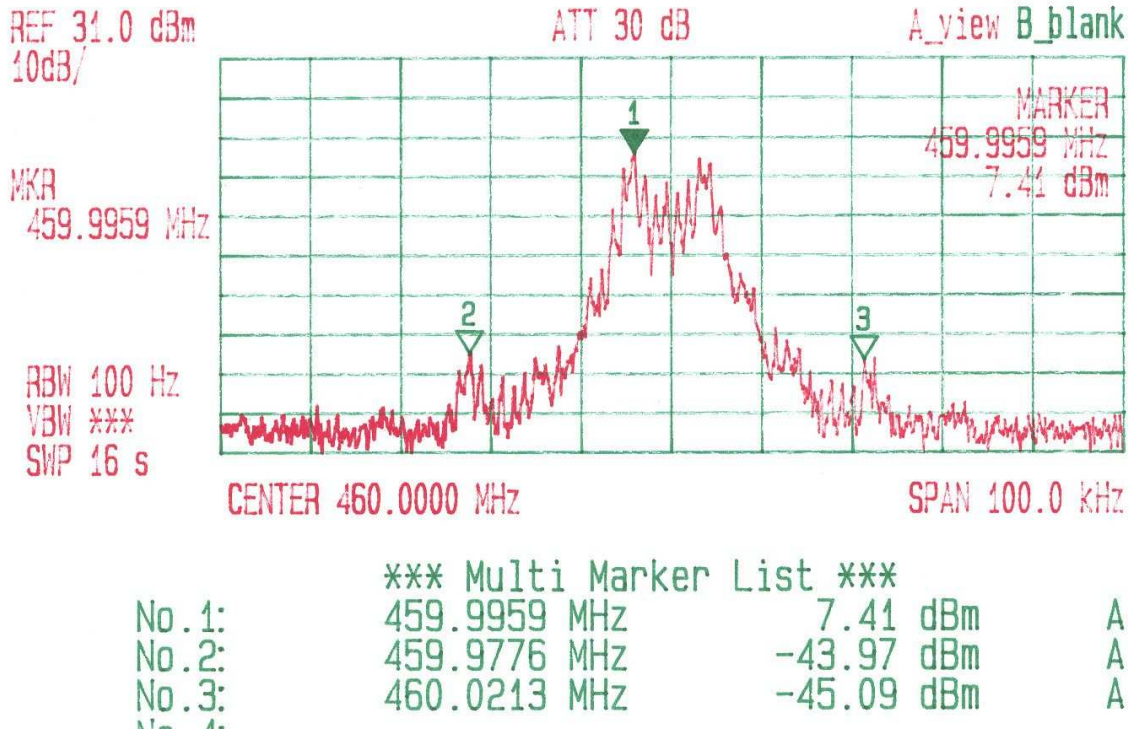
FCC1 – Modulated spectrum – 460MHz



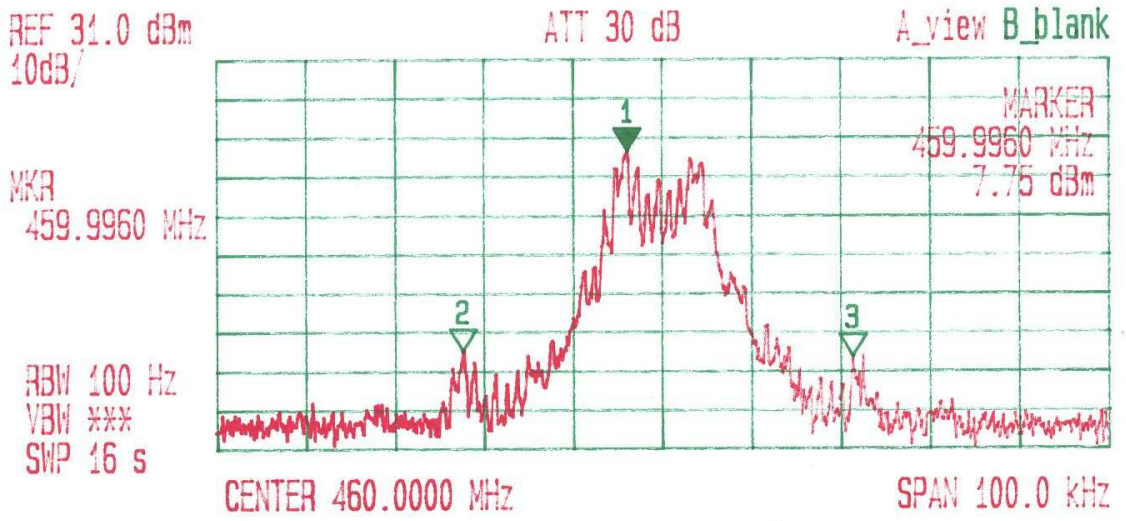
FCC2 - Modulated spectrum – 470MHz



FCC1 - 450MHz - 25kHz



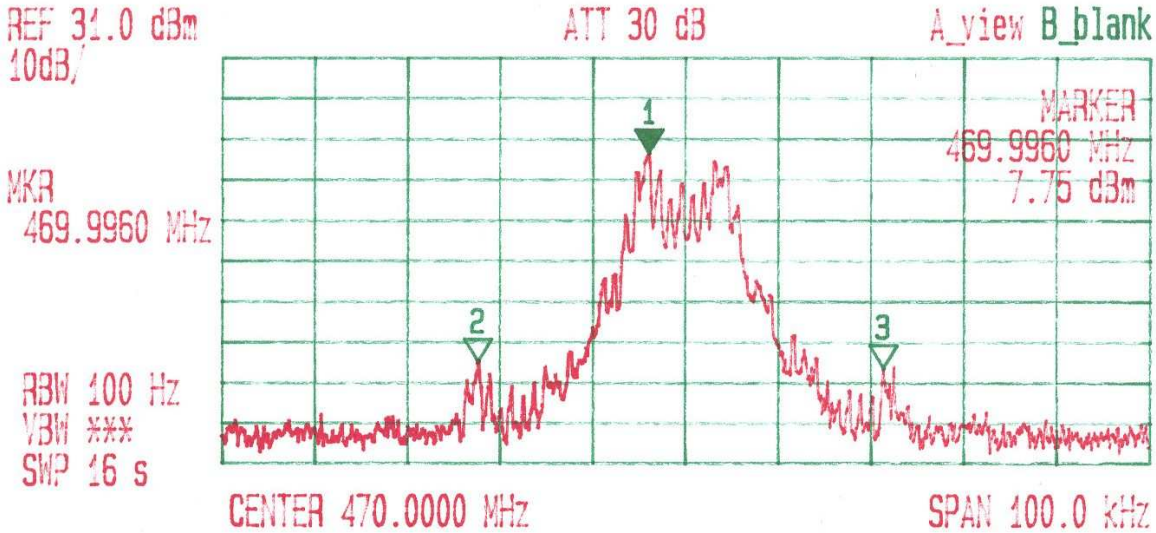
FCC1 – 460MHz – 25kHz



*** Multi Marker List ***

No.1:	459.9960 MHz	7.75 dBm	A
No.2:	459.9776 MHz	-43.97 dBm	A
No.3:	460.0213 MHz	-45.09 dBm	A

FCC2 – 460MHz – 25kHz



*** Multi Marker List ***

No.1:	469.9960 MHz	7.75 dBm	A
No.2:	469.9776 MHz	-43.97 dBm	A
No.3:	470.0213 MHz	-45.09 dBm	A

FCC2 – 470MHz – 25kHz