



COMPANY NAME: COM NET ERICSSON.
EUT: UHF-M SPLIT 450-488 MHz PANTHER 300M
CLIENT REFERENCE NUMBER: QRTL00-257
WORK ORDER NUMBER: 2000279
FCC ID: OWDTR-0005-A

10.0 FCC Rules and Regulations Part 90 §90.214 : TRANSIENT FREQUENCY BEHAVIOR

10.1 Test Procedure

ANSI/TIA/EIA-603-1992, section 2.2.19

10.2 Test Data

Limits:

Requirements for EUT with 25 kHz channel spacing:

Time Intervals (*)(**)	Maximum Frequency Difference(***)	150-174 MHz	421-512 MHz
t1(****)	± 25 kHz	5.0 mSec	10.0 mSec
t2	± 12.5 kHz	20.0 mSec	25.0 mSec
t3(****)	± 25 kHz	5.0 mSec	10.0 mSec

Requirements for EUT with 12.5 kHz channel spacing:

Time Intervals (*)(**)	Maximum Frequency Difference(***)	150-174 MHz	421-512 MHz
t1(****)	± 12.5 kHz	5.0 mSec	10.0 mSec
t2	± 6.25 kHz	20.0 mSec	25.0 mSec
t3(****)	± 12.5 kHz	5.0 mSec	10.0 mSec

(*) t on is the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing.

t 1 is the time period immediately following ton.

t2 is the time period immediately following t1.

t3 is the time period from the instant when the transmitter is turned off until toff.

toff is the instant when the 1 kHz test signal starts to rise.

(**) During the time from the end of t2 to the beginning of t3, the frequency difference must not exceed the limits specified in § 90.213.

(***) Difference between the actual transmitter frequency and the assigned transmitter frequency.

(****) If the transmitter carrier output power rating is 6 watts or less, the frequency difference during this time period may exceed the maximum frequency difference for this time period.

Maximum frequency difference between time T2 and T3: Calculation for Channel 6:

The frequency stability is required to be 2.5ppm.

Calculation for Channel 6:

4 div. on scope represent 12.5kHz for narrow band channel.

Therefore, 487.975M times 2.5 ppm times +/- 4 Divisions divided by 12.5kHz equals about +/- 0.4 division. 0.4 Div. correspond to 1.219 kHz



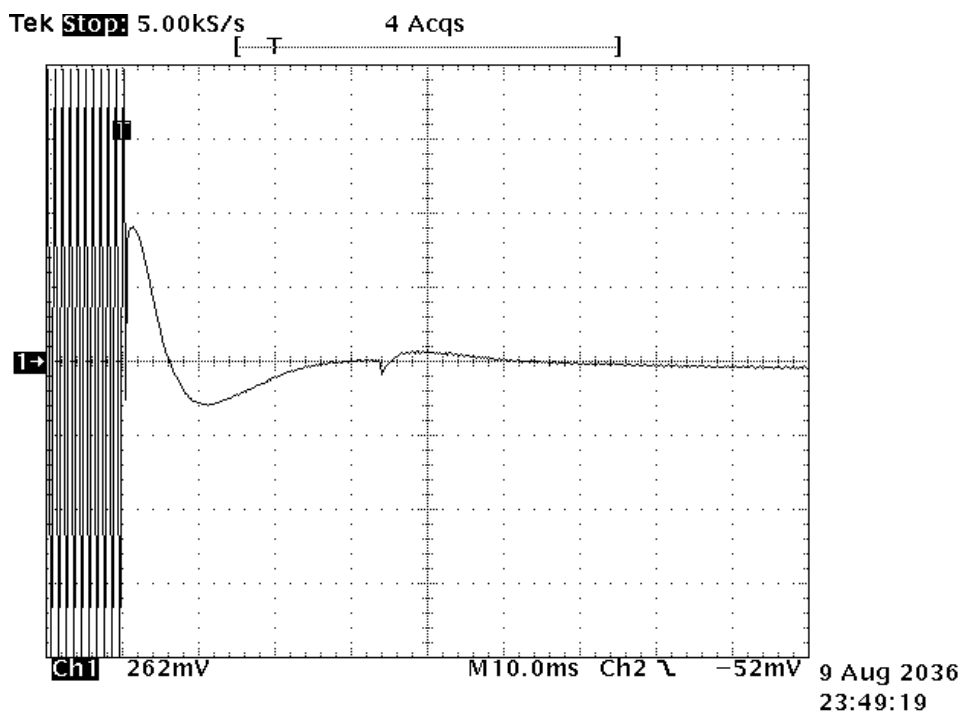
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Carrier ON time:

High Power: 40 W rated

Channel 6 : 487.975 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -52mV

Ch1: 262mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



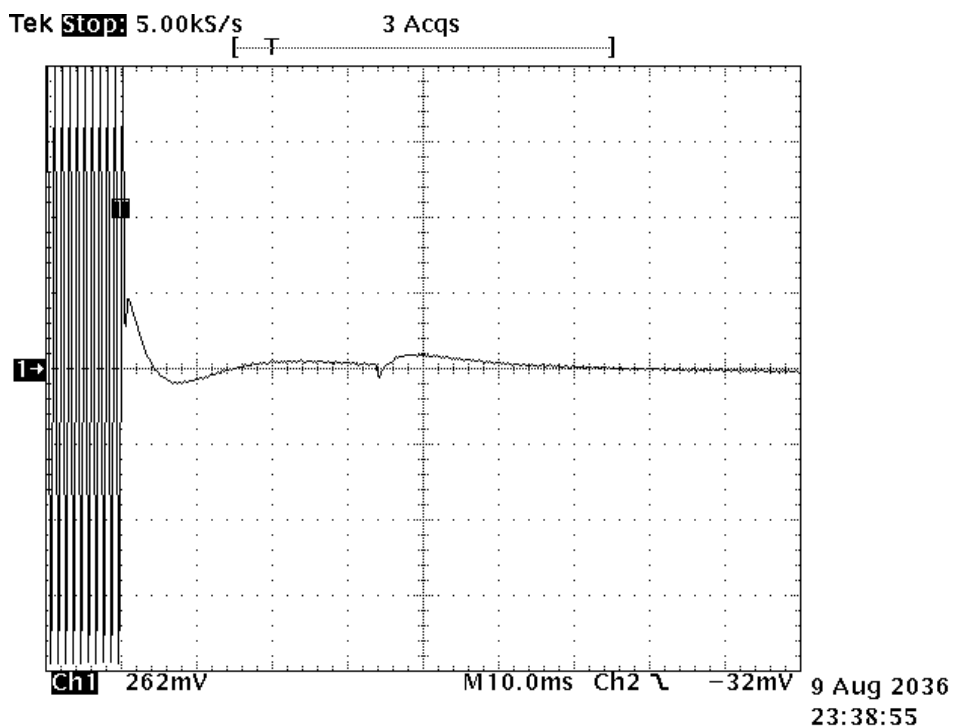
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Carrier ON Time:

High Power: 40 W rated

Channel 5 : 469.975 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -32mV

Ch1: 262 mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



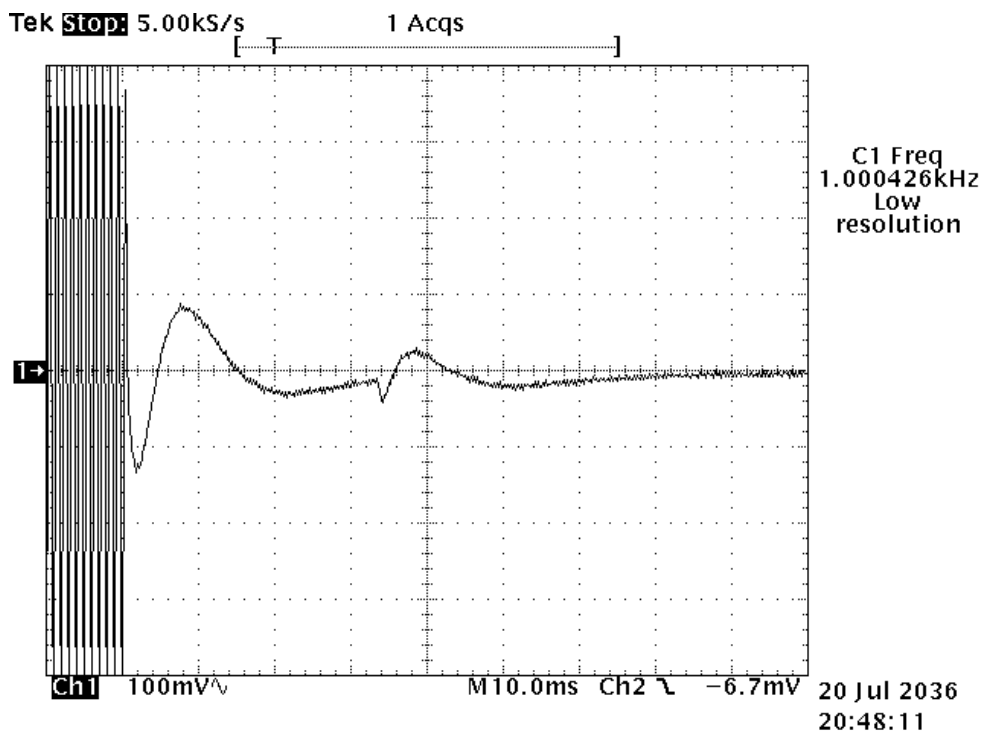
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Carrier ON time:

High Power: 40 W rated

Channel 4 : 450.025 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -6.7mV

Ch1: 100mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



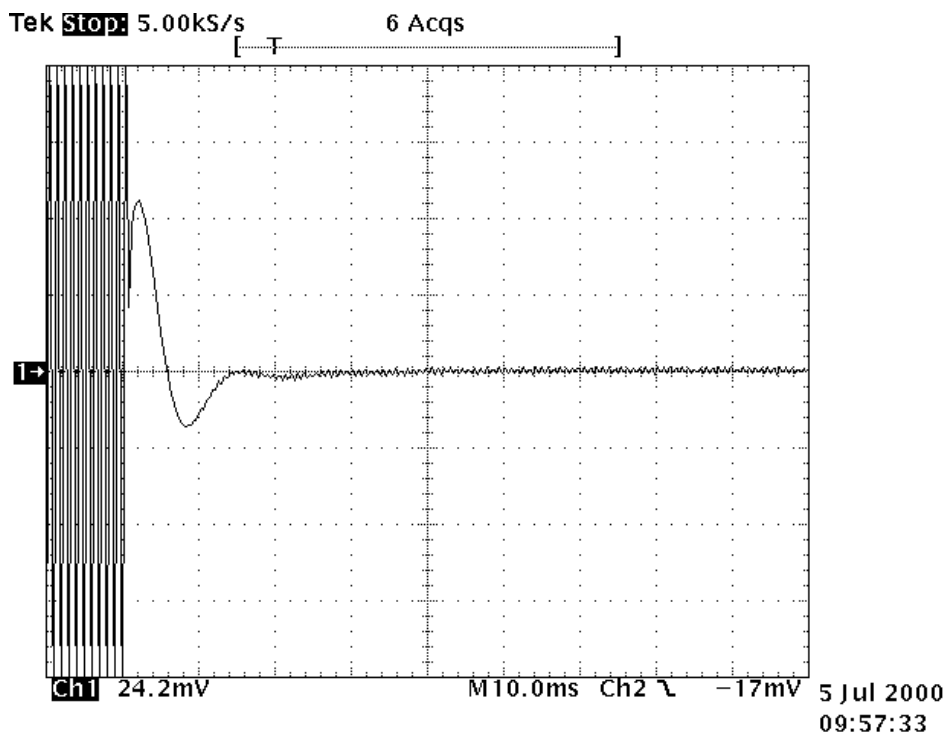
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Carrier ON time:

High Power: 20 W rated

Channel 6 : 487.975 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -17mV

Ch1: 24.2mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



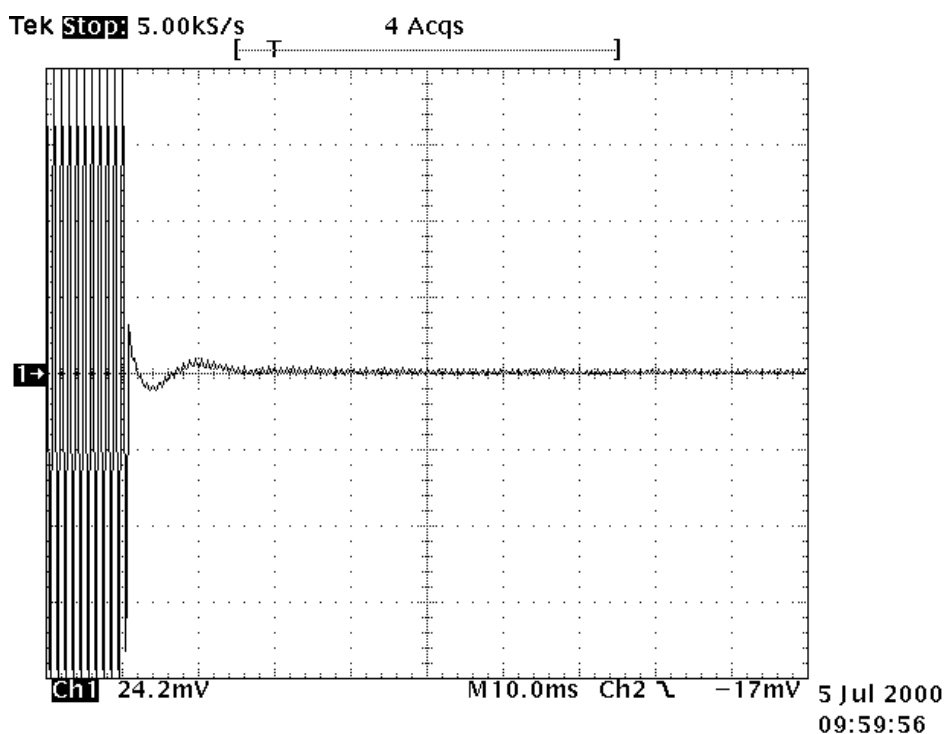
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Carrier ON time:

High Power: 20 W rated

Channel 5 : 469.075 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -17mV

Ch1: 24.2mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



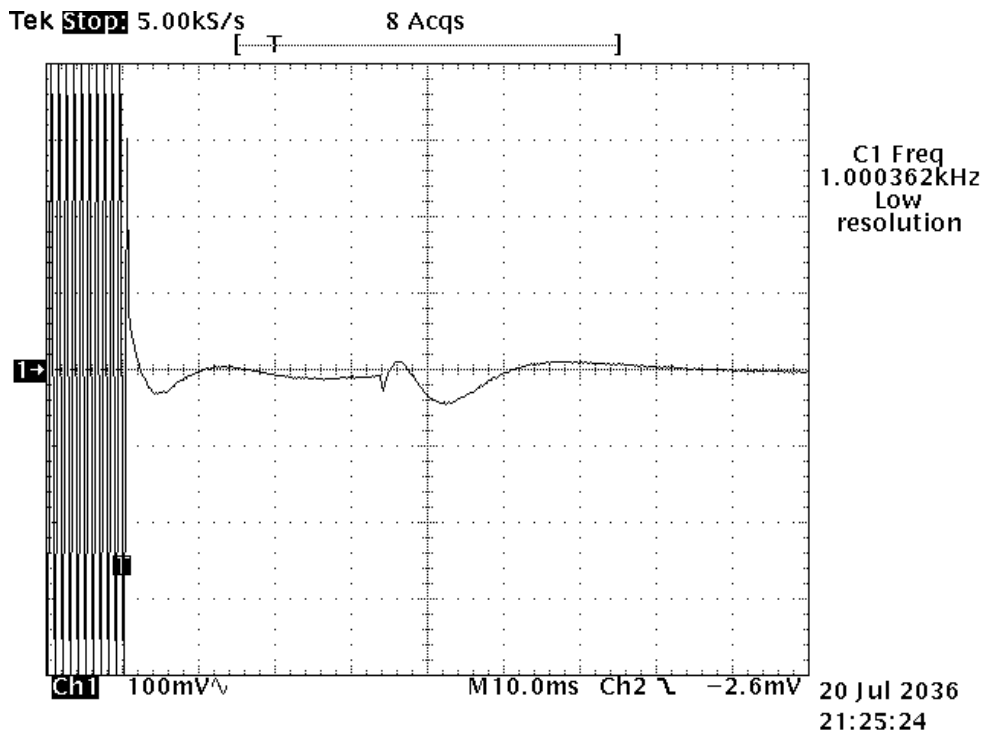
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Carrier ON time:

High Power: 20 W rated

Channel 4 : 450.025 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -2.6mV

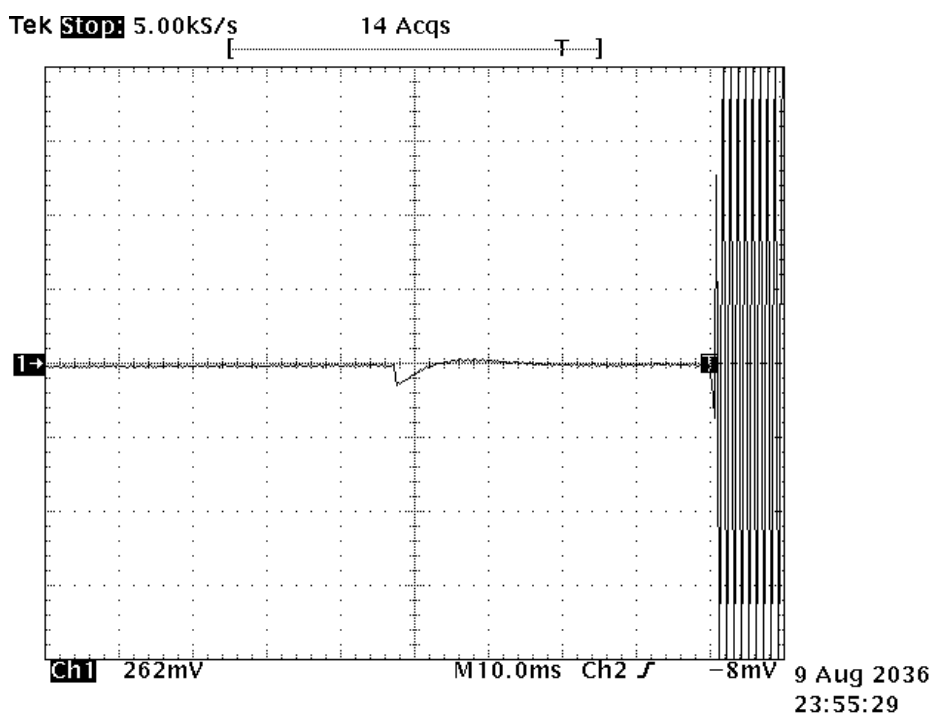
Ch1: 100mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



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Carrier OFF time:
High Power: 40 W rated
Channel 6 : 487.975 MHz NB(12.5kHz)
RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div
Trigger: On negative edge of Ch2, level -8mV
Ch1: 262mV/div, Probe 1.000:1
Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



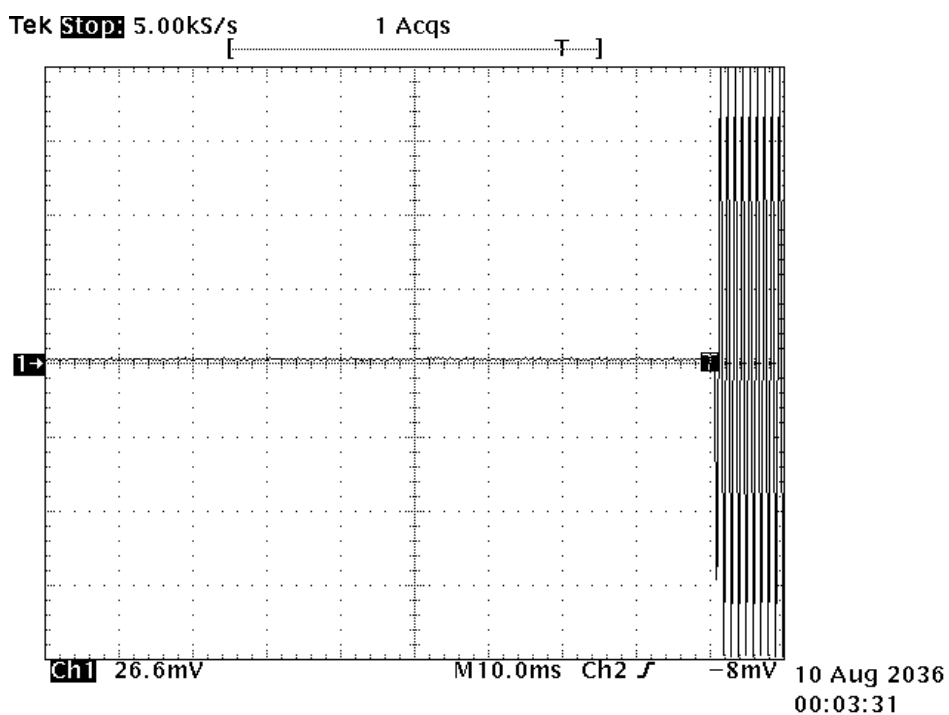
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Carrier OFF Time:

High Power: 40 W rated

Channel 5 : 469.975 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -8mV

Ch1: 26.6 mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



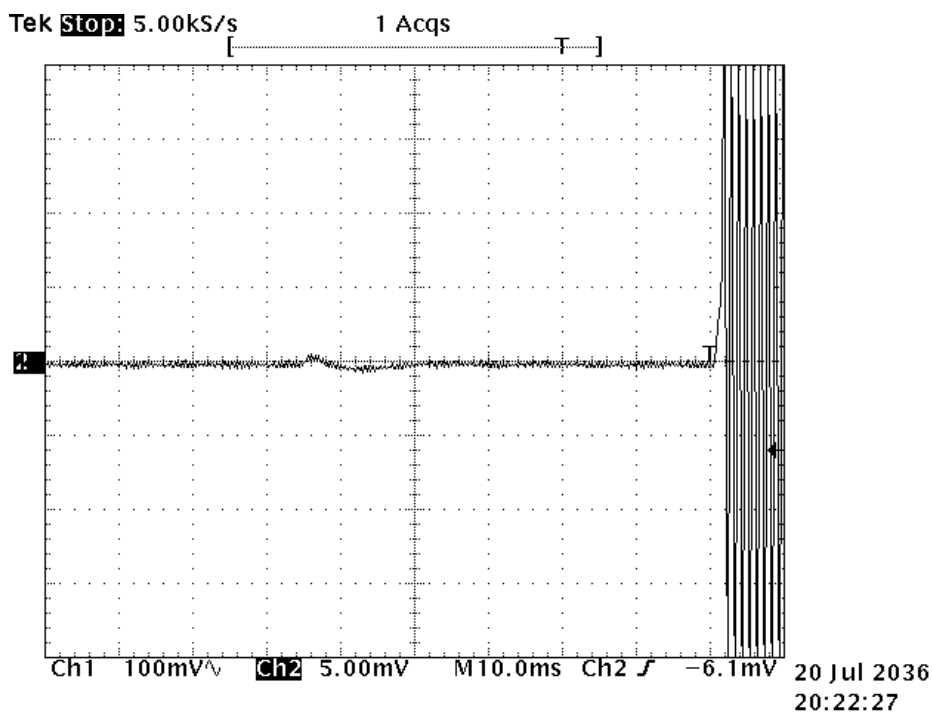
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High Power: 40 W rated

Channel 4 : 450.025 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -6.1mV

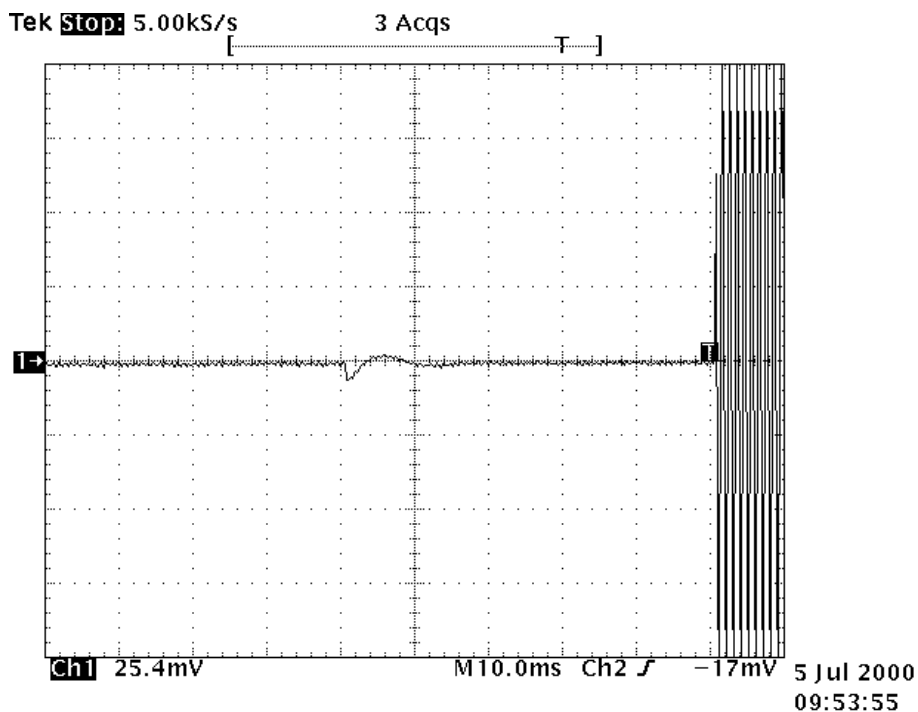
Ch1: 100mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



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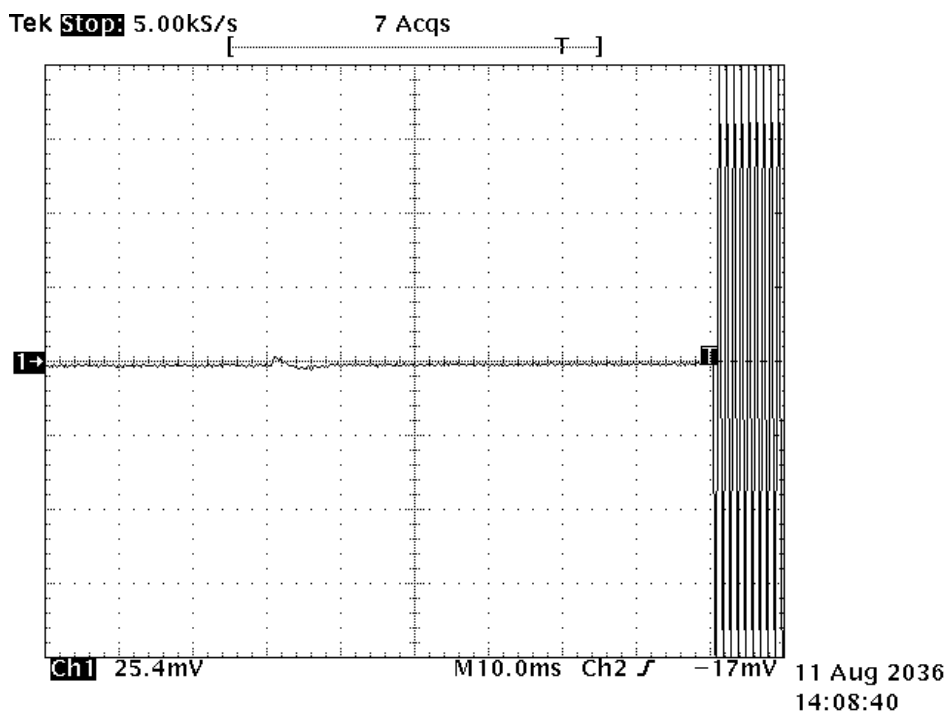


Timebase: 10 ms/div
Trigger: On negative edge of Ch2, level -17mV
Ch1: 25.4mV/div, Probe 1.000:1
Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



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Carrier OFF time:
High Power: 20 W rated
Channel 5 : 469.075 MHz NB(12.5kHz)
RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div
Trigger: On negative edge of Ch2, level -17mV
Ch1: 25.4mV/div, Probe 1.000:1
Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz



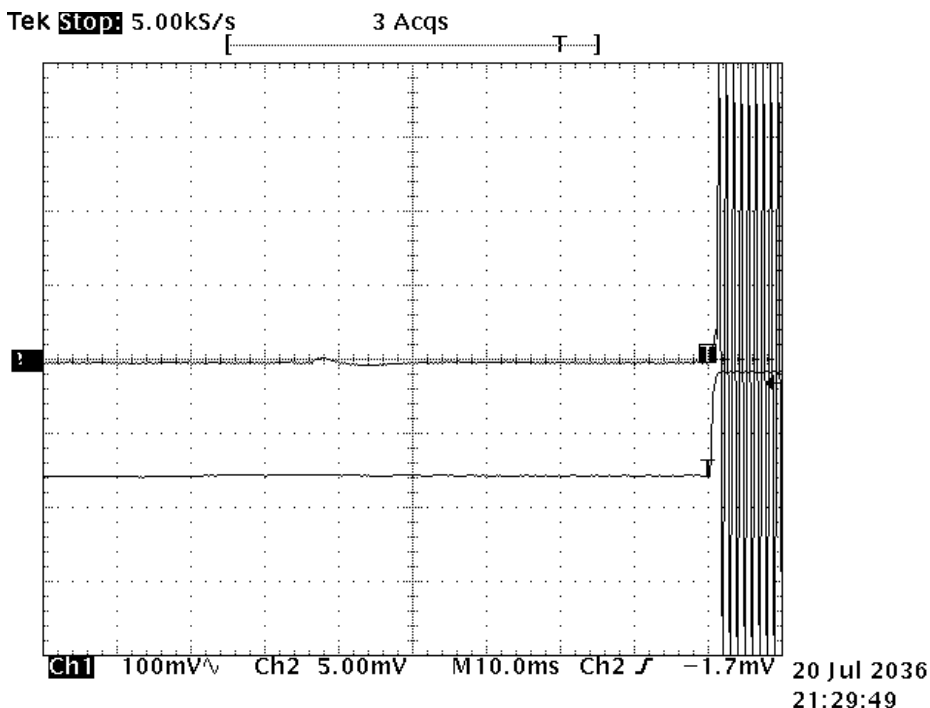
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Carrier OFF time:

High Power: 20 W rated

Channel 4 : 450.025 MHz NB(12.5kHz)

RF Signal Generator: Modulation 12.5kHz deviation



Timebase: 10 ms/div

Trigger: On negative edge of Ch2, level -1.7mV

Ch1: 100mV/div, Probe 1.000:1

Vertical scale: +/- 4 div. corresponds to +/- 12.5 kHz

10.3 Test Equipment

Detector: HP8471D s/n 2952A
RF signal generator: HP8648C s/n 3537A01741
Modulation Analyzer: HP8901A s/n 2545A04102
Oscilloscope: Tektronix TDS540B s/n B020129
Receiver: HP 8546A s/n 3525A00159