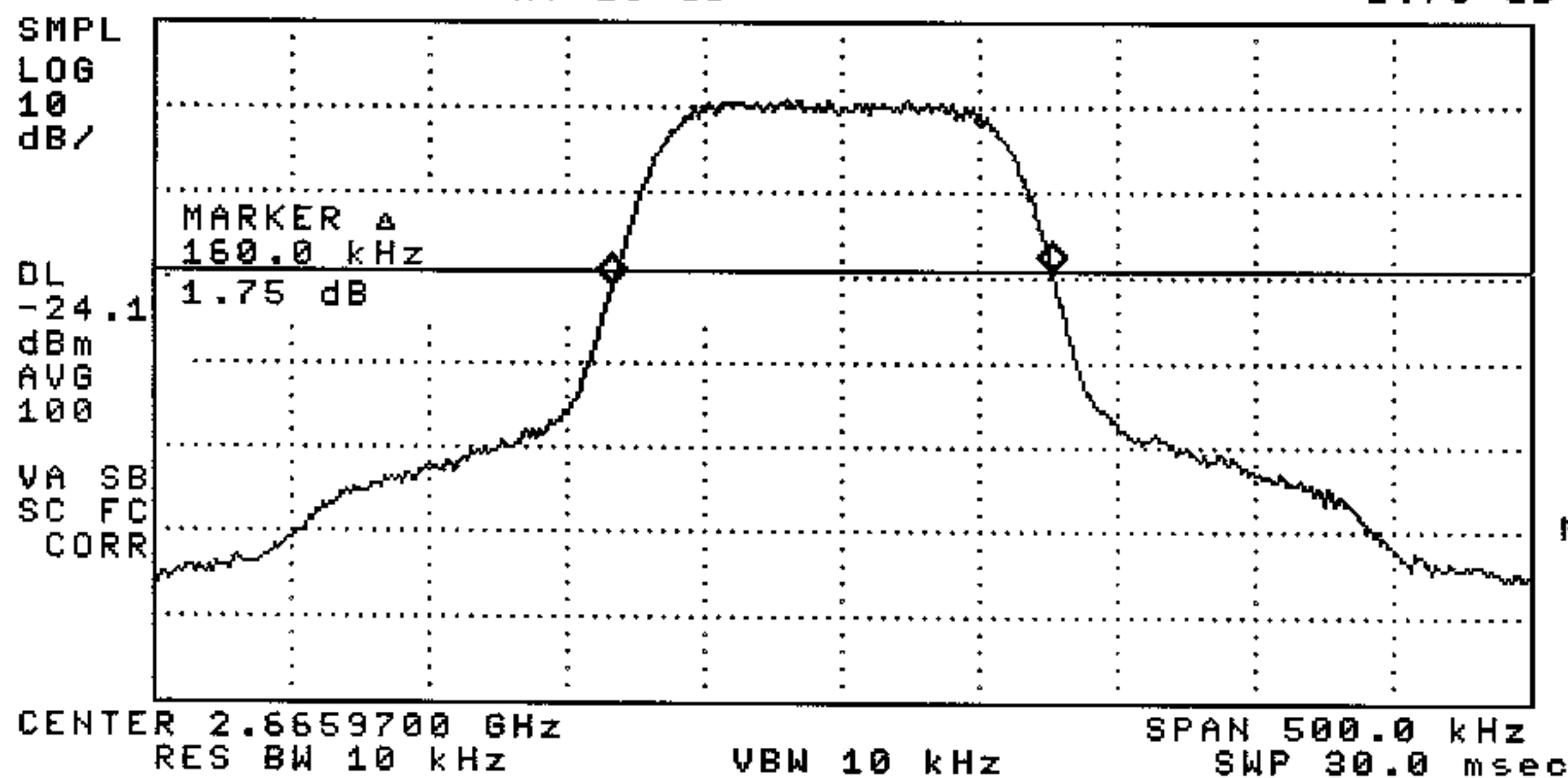


11:37:58 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 128K
 REF 5.0 dBm AT 20 dB



1.75 dB

MARKER
 NORMAL

MARKER
 Δ

MARKER
 AMPTD

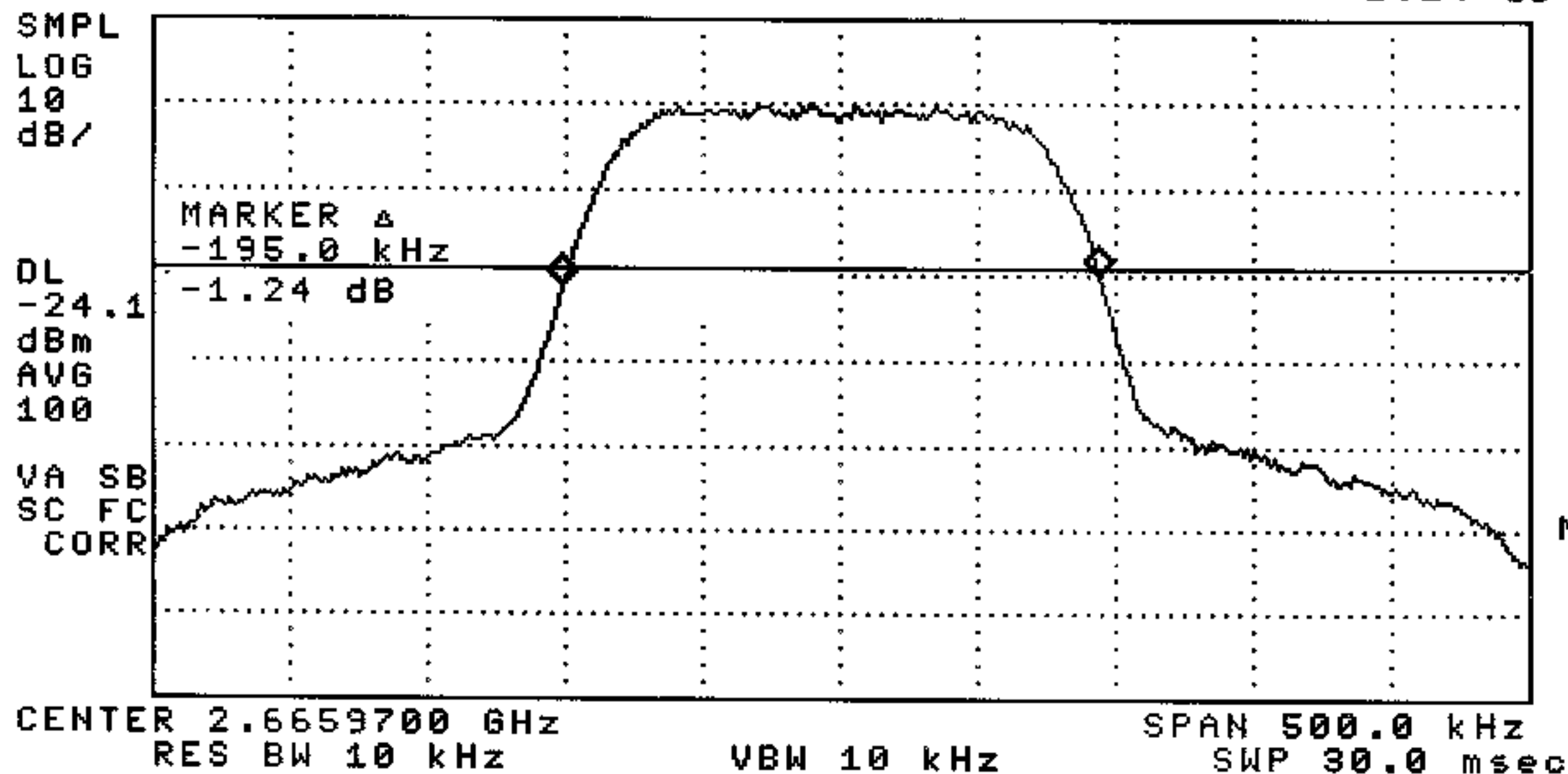
SELECT
 1 2 3 4

MARKER 1
 ON OFF

More
 1 of 3

96

11:40:12 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 160K
 REF 5.0 dBm AT 20 dB



-1.24 dB

MARKER
 NORMAL

MARKER
 Δ

MARKER
 AMPTD

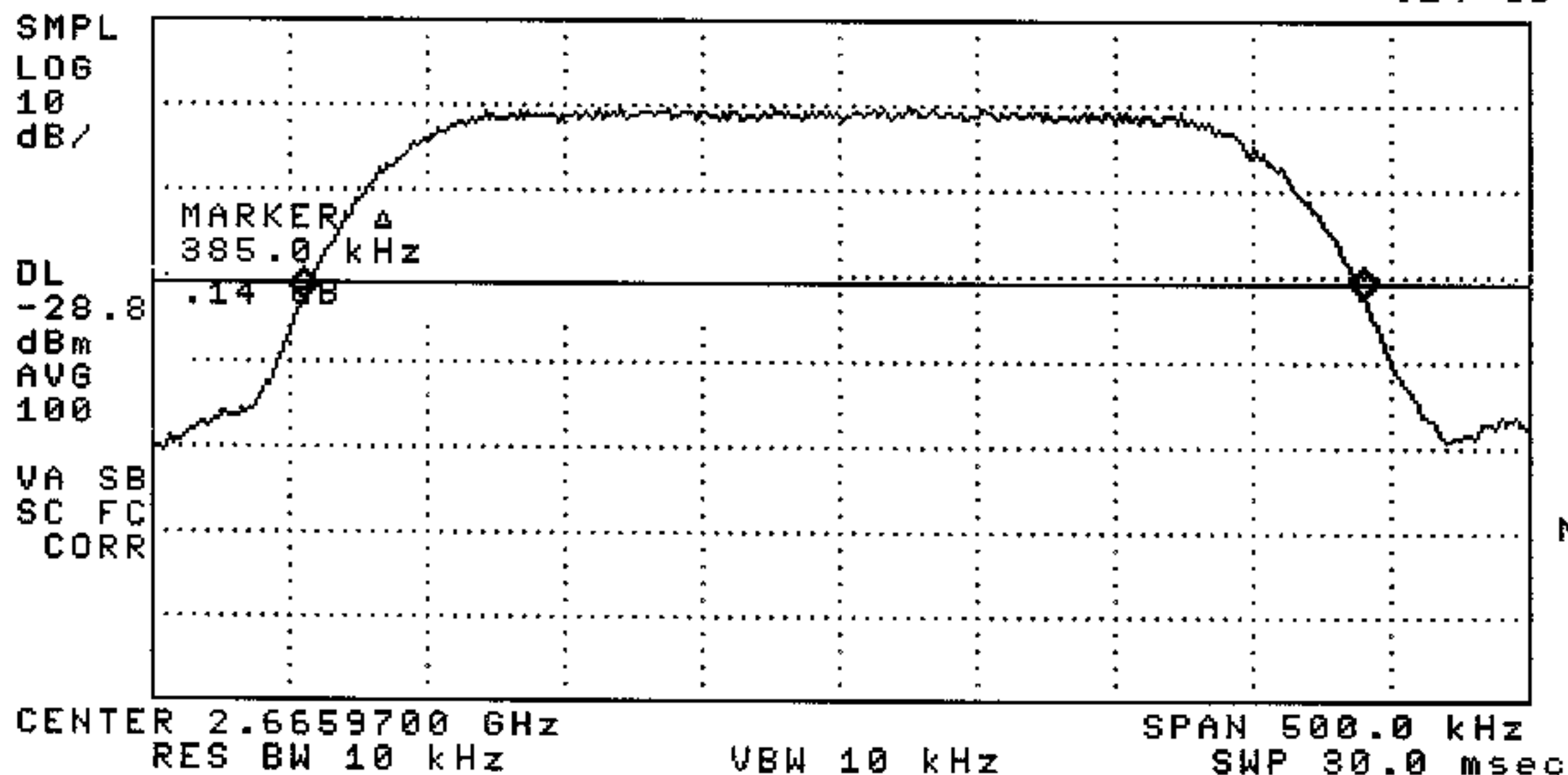
SELECT
 1 2 3 4

MARKER 1
 ON OFF

More
 1 of 3

97

11:43:41 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 320K
 REF 2.0 dBm AT 20 dB



.14 dB

MARKER
 NORMAL

MARKER
 Δ

MARKER
 AMPTD

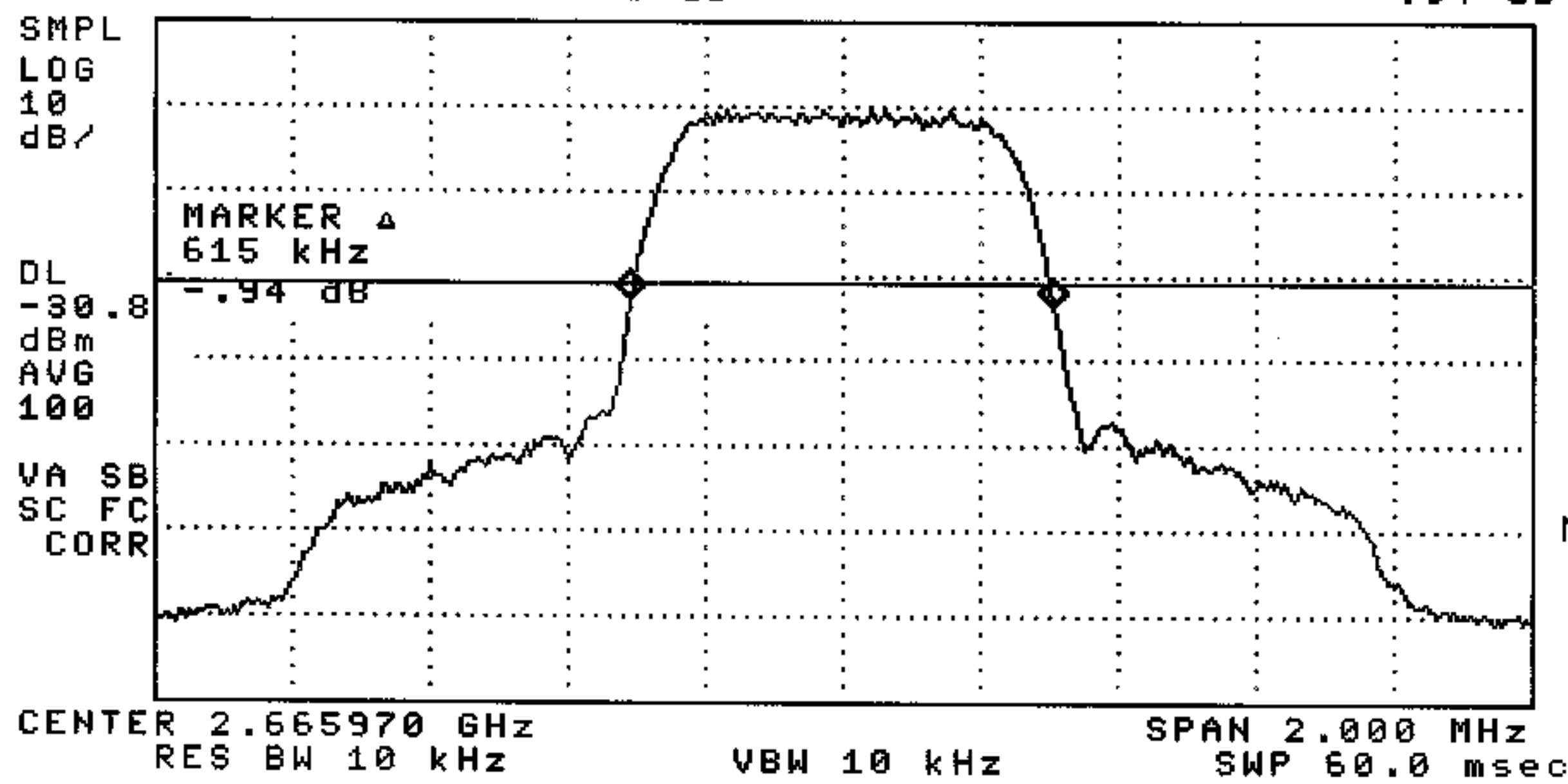
SELECT
 1 2 3 4

MARKER 1
 ON OFF

More
 1 of 3

98

11:47:02 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 512K
 REF .0 dBm AT 10 dB



-30.8 dB

MARKER NORMAL

MARKER Δ

MARKER AMPTD

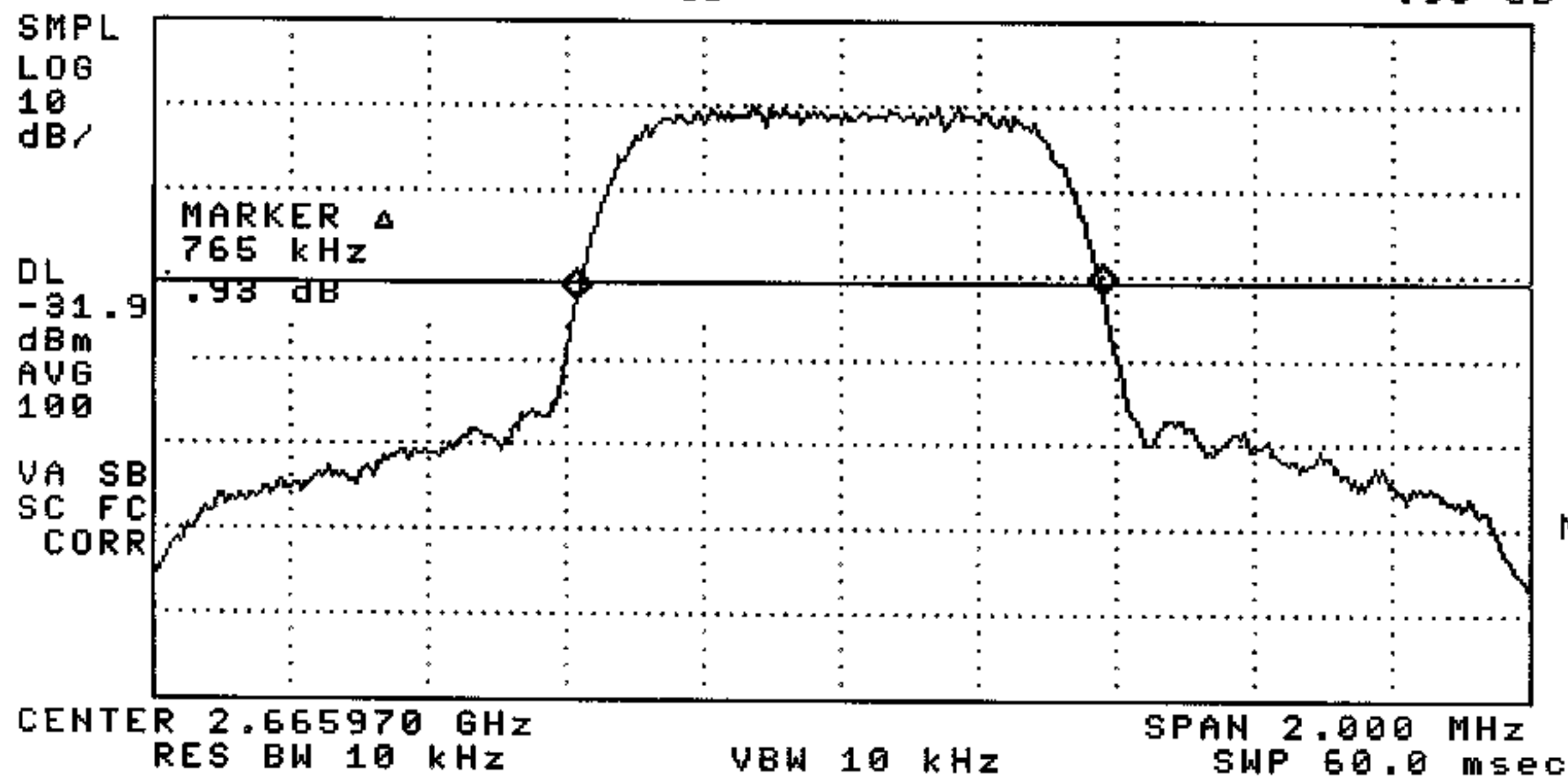
SELECT 1 2 3 4

MARKER 1 ON OFF

More 1 of 3

99

11:48:26 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 640K
 REF -1.0 dBm AT 10 dB



-31.9 dB

MARKER NORMAL

MARKER Δ

MARKER AMPTD

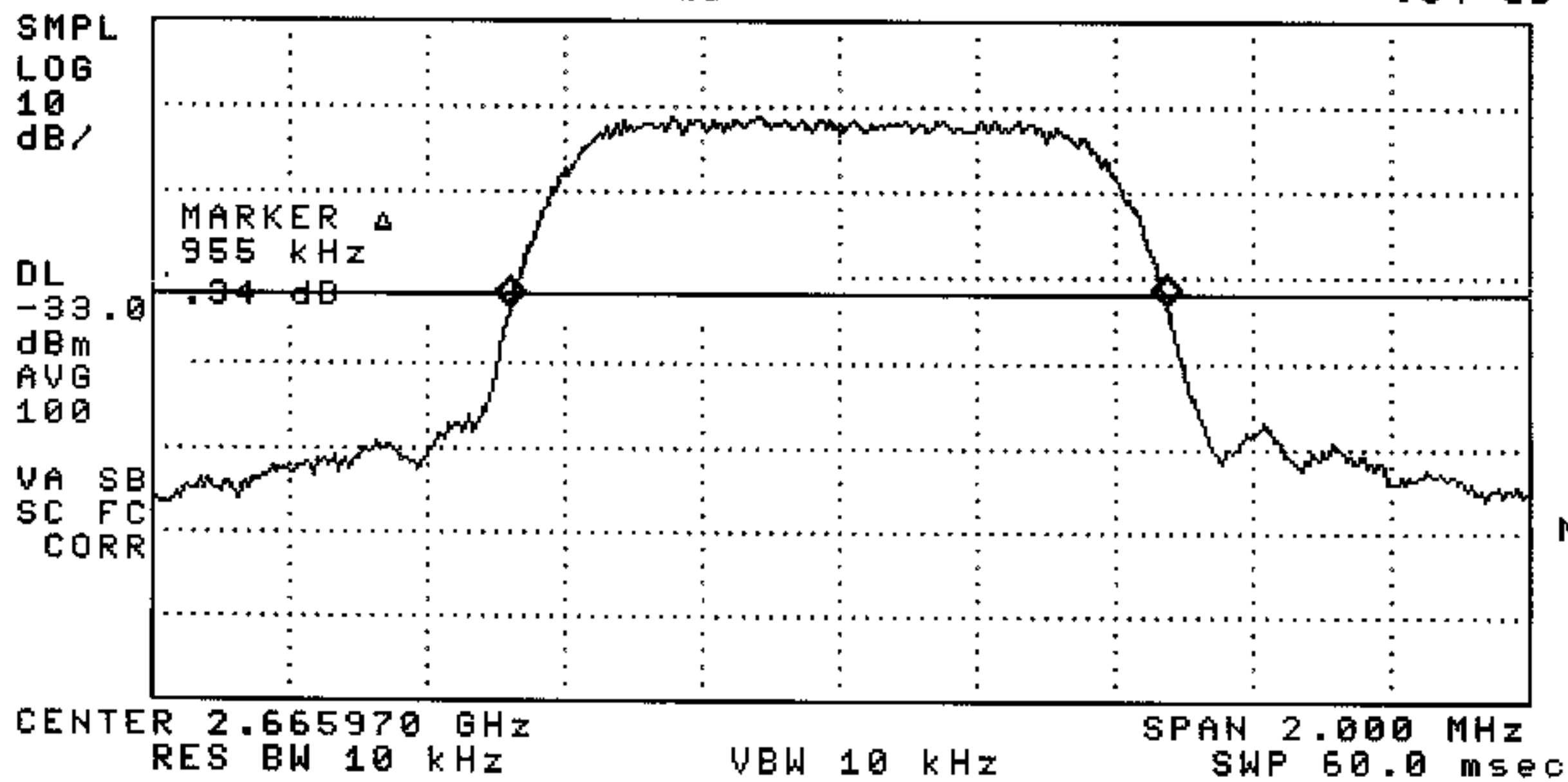
SELECT 1 2 3 4

MARKER 1 ON OFF

More 1 of 3

100

11:49:53 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 800K
 REF -1.0 dBm AT 10 dB



-33.0 dB

MARKER NORMAL

MARKER Δ

MARKER AMPTD

SELECT 1 2 3 4

MARKER 1 ON OFF

More 1 of 3

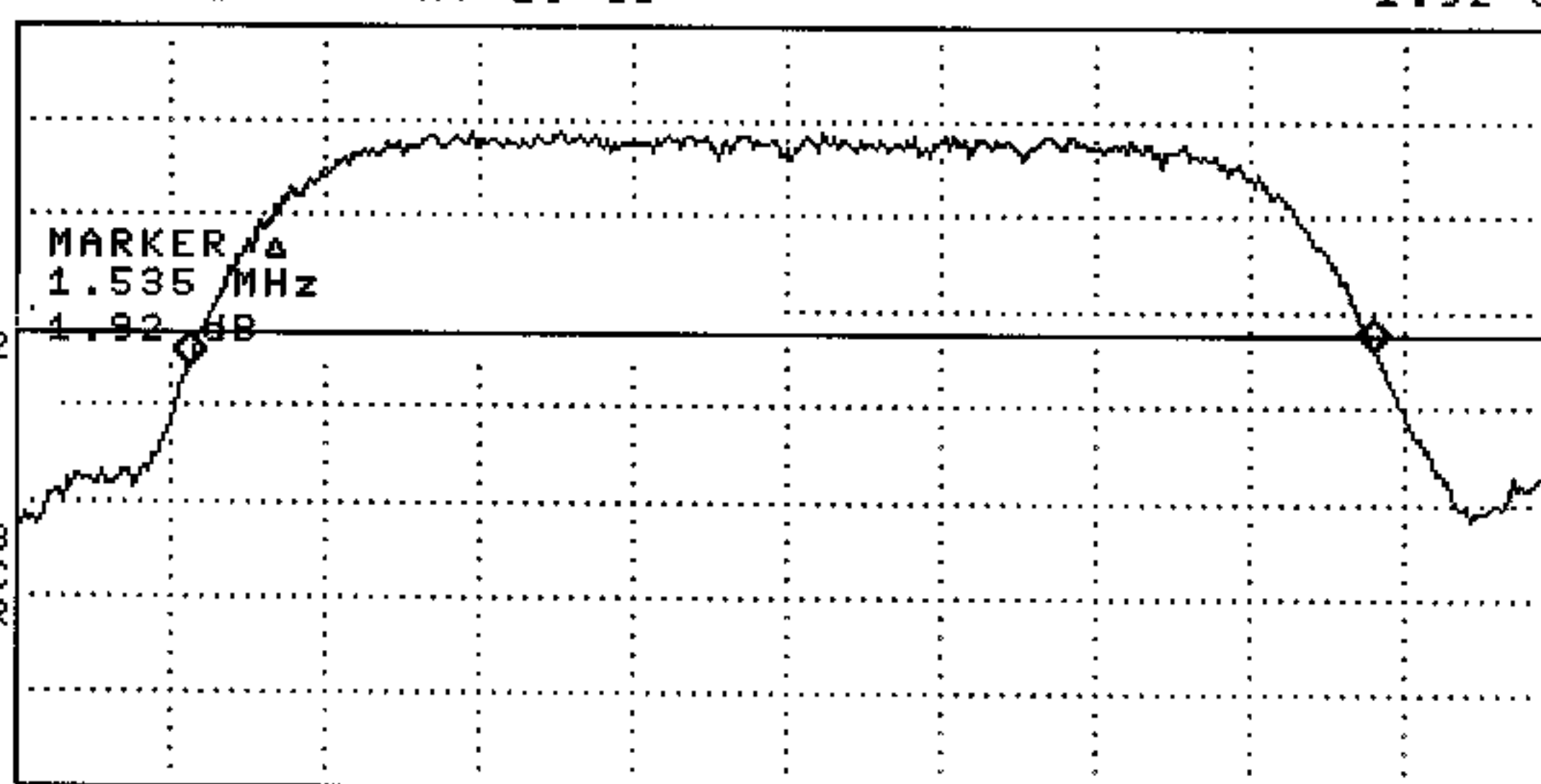
101

11:52:09 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 1280
 REF -3.0 dBm AT 10 dB

MKRA 1.535 MHz
 1.92 dB

SMPL
 LOG
 10
 dB/

DL
 -35.2
 dBm
 AVG
 100
 VA SB
 SC FC
 CORR



CENTER 2.665970 GHz
 RES BW 10 kHz

VBW 10 kHz

SPAN 2.000 MHz
 SWP 60.0 msec

MARKER
 NORMAL

MARKER
 Δ

MARKER
 AMPTD

SELECT
 1 2 3 4

MARKER 1
 ON OFF

More
 1 of 3

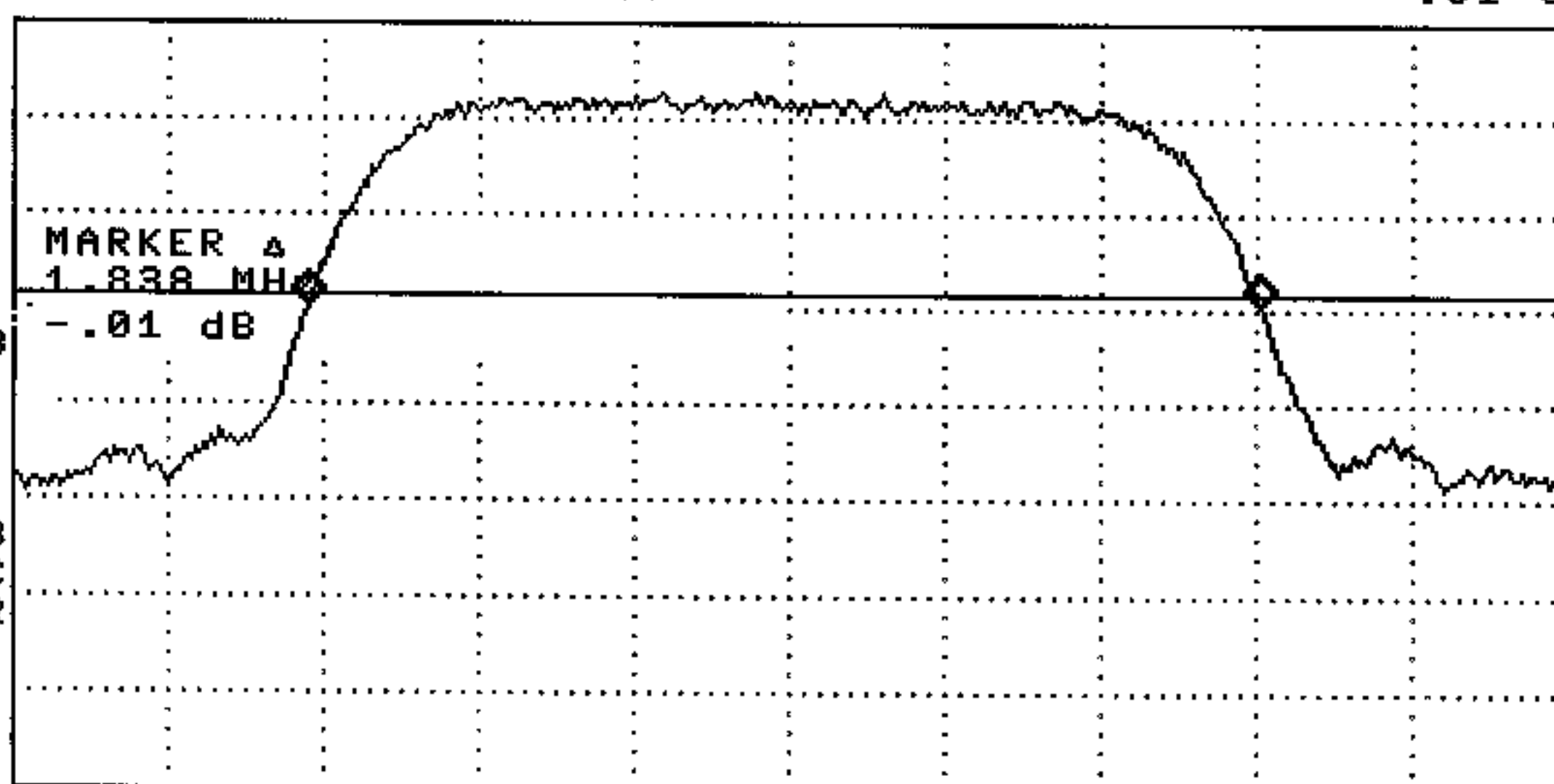
102

11:55:04 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 1544
 REF -3.0 dBm AT 10 dB

MKRA 1.838 MHz
 -.01 dB

SMPL
 LOG
 10
 dB/

DL
 -31.3
 dBm
 AVG
 100
 VA SB
 SC FC
 CORR



CENTER 2.665970 GHz
 RES BW 30 kHz

VBW 30 kHz

SPAN 3.000 MHz
 SWP 20.0 msec

MARKER
 NORMAL

MARKER
 Δ

MARKER
 AMPTD

SELECT
 1 2 3 4

MARKER 1
 ON OFF

More
 1 of 3

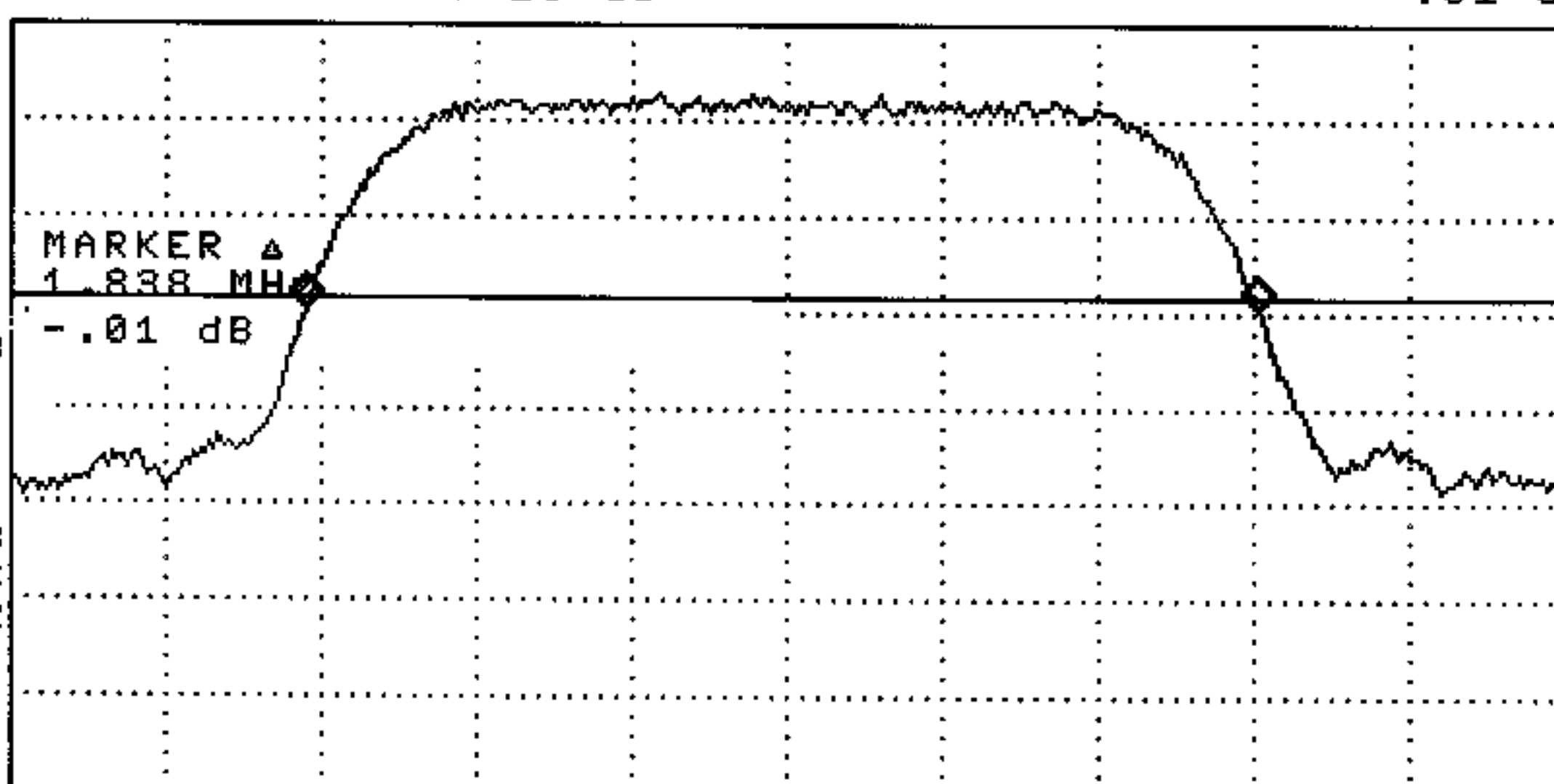
103

11:55:50 NOV 21, 2001
 TSI OUPP1804-2 QPSK OCC BW 1544K
 REF -3.0 dBm AT 10 dB

-.01 dB

SMPL
 LOG
 10
 dB/

DL
 -31.3
 dBm
 AVG
 100
 VA SB
 SC FC
 CORR



CENTER 2.665970 GHz
 RES BW 30 kHz

VBW 30 kHz

SPAN 3.000 MHz
 SWP 20.0 msec

MARKER
 NORMAL

MARKER
 Δ

MARKER
 AMPTD

SELECT
 1 2 3 4

MARKER 1
 ON OFF

More
 1 of 3

104

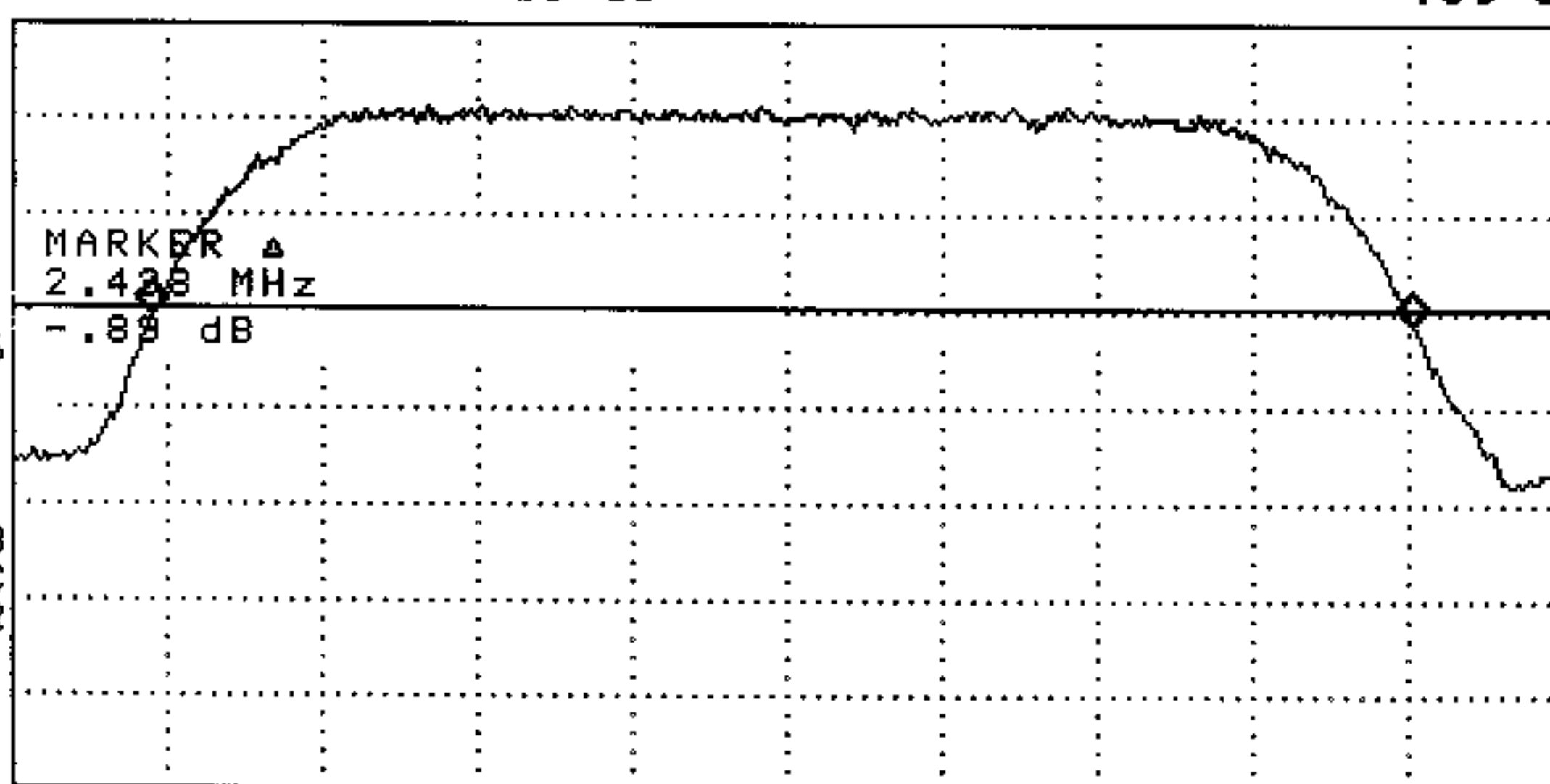
12:01:35 NOV 21, 2001
TSI OUPP1804-2 QPSK 2048K
REF -3.0 dBm AT 10 dB

MKRΔ 2.438 MHz
-.89 dB

SMPL
LOG
10
dB/

DL
-32.6
dBm
AVG
100

WA SB
SC FC
CORR



CENTER 2.665970 GHz
RES BW 30 kHz

VBW 30 kHz

SPAN 3.000 MHz
SWP 20.0 msec

MARKER
NORMAL

MARKER
Δ

MARKER
AMPTD

SELECT
1 2 3 4

MARKER 1
ON OFF

More
1 of 3

105

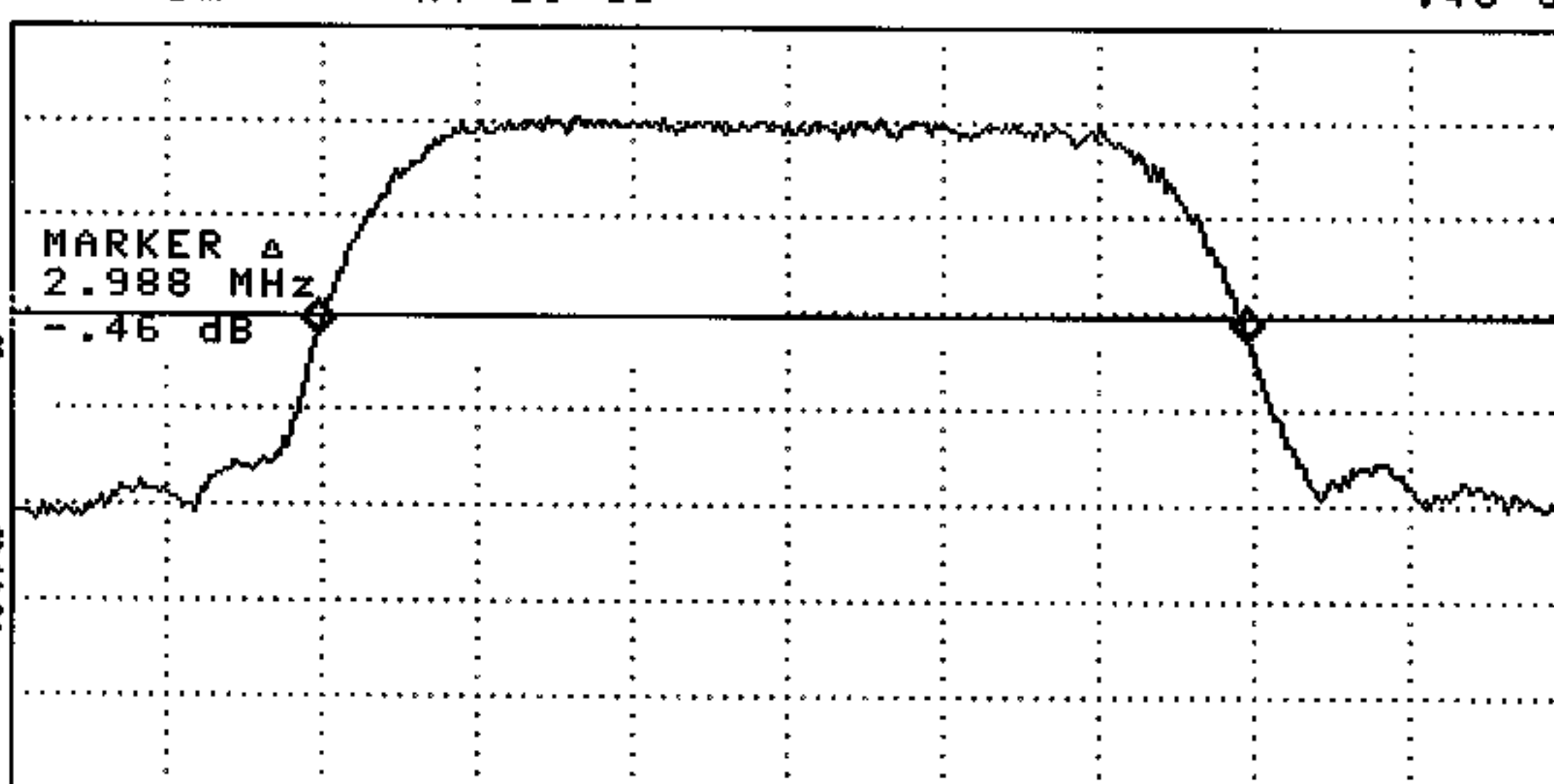
12:02:59 NOV 21, 2001
TSI OUPP1804-2 QPSK 2560K
REF -3.0 dBm AT 10 dB

MKRΔ 2.988 MHz
-.46 dB

SMPL
LOG
10
dB/

DL
-33.3
dBm
AVG
100

WA SB
SC FC
CORR



CENTER 2.665970 GHz
RES BW 30 kHz

VBW 30 kHz

SPAN 5.000 MHz
SWP 20.0 msec

MARKER
NORMAL

MARKER
Δ

MARKER
AMPTD

SELECT
1 2 3 4

MARKER 1
ON OFF

More
1 of 3

106