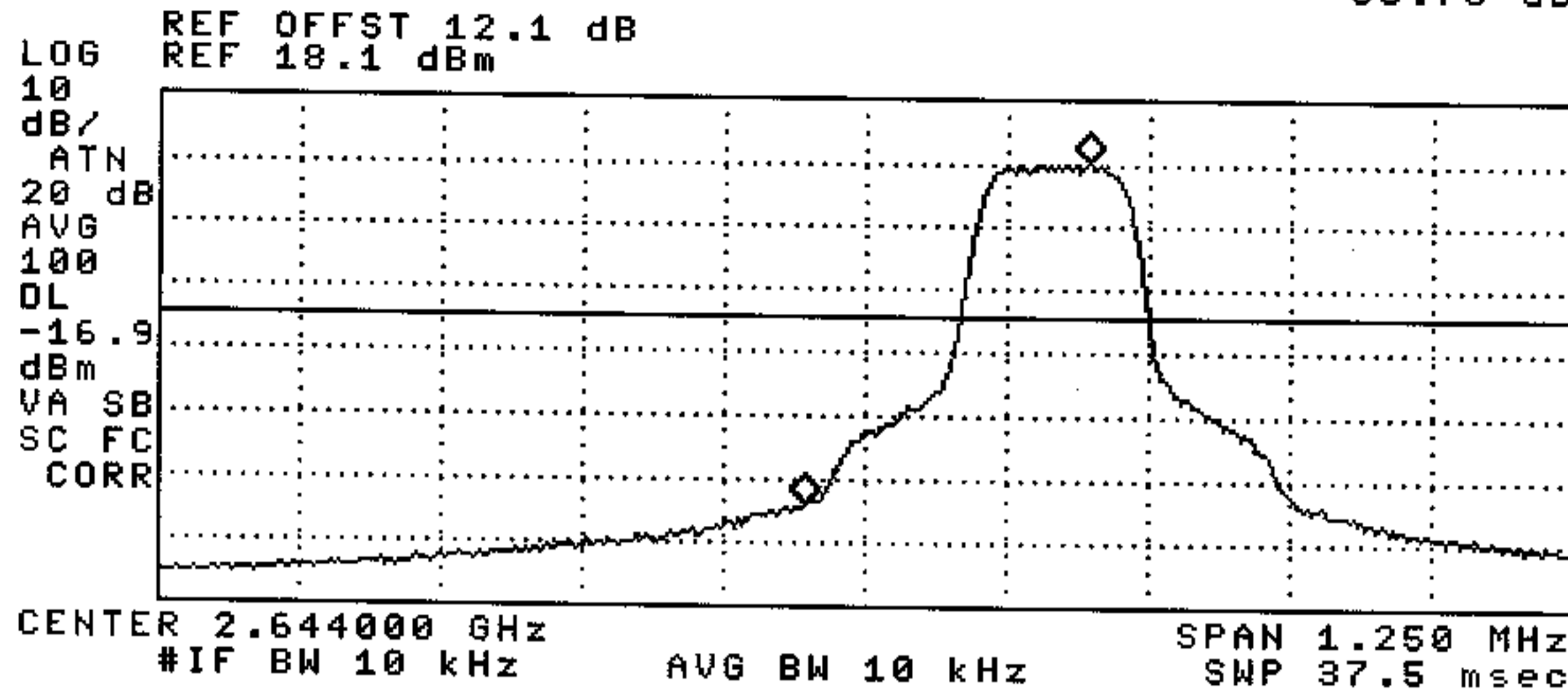


11:34:26 NOV 15, 2001  
TSI OUPP1804-2 QPSK 128K 2.6442GHz

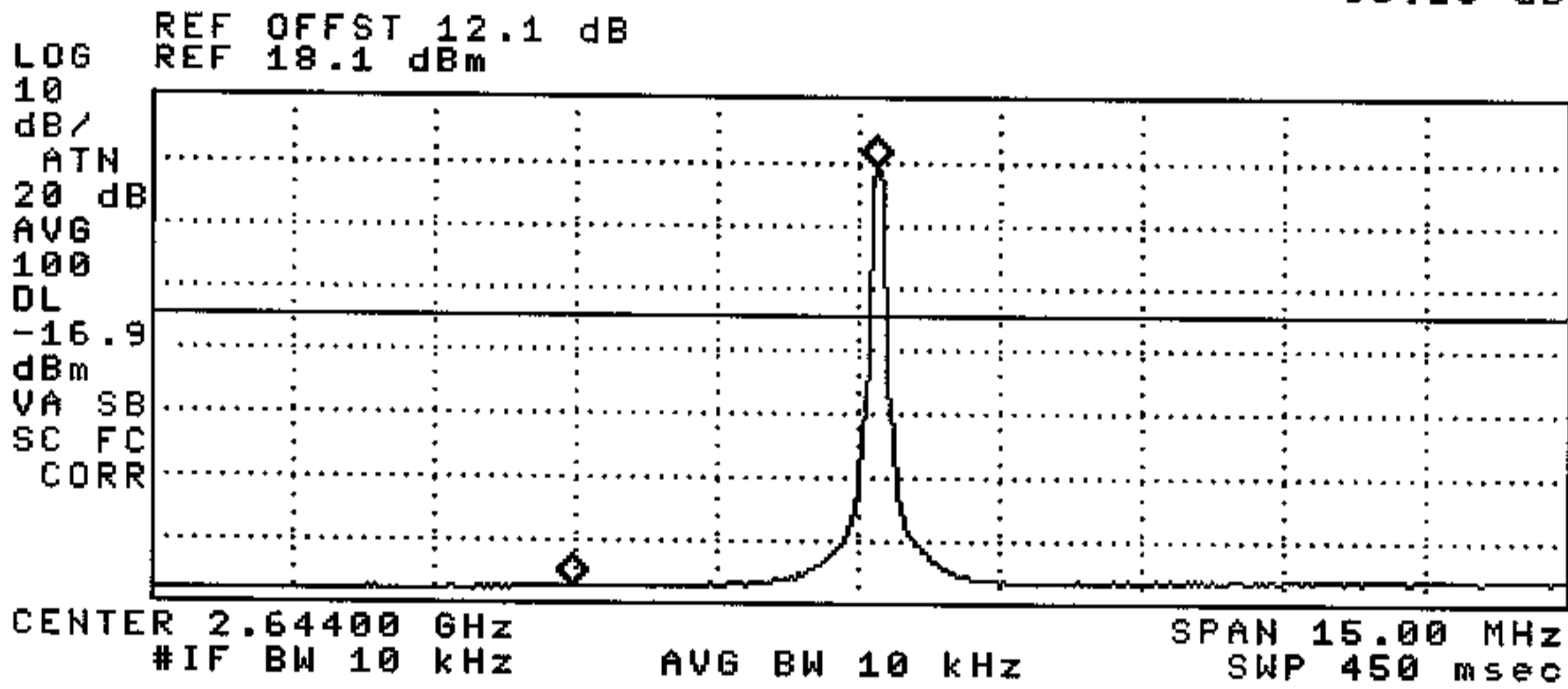
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -250 kHz  
-53.76 dB



54

11:38:16 NOV 15, 2001  
TSI OUPP1804-2 QPSK 128K 2.6442GHz

MARKER Δ 3.23 MHz 66.16 dB  
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 3.23 MHz 66.16 dB



MARKER NORMAL

MARKER Δ

MARKER AMPTD

SELECT 1 2 3 4

MARKER 1 ON OFF

More 1 of 3

55

11:25:44 NOV 21, 2001  
TSI OUPP1804-2 QPSK 128K 2.68596Hz

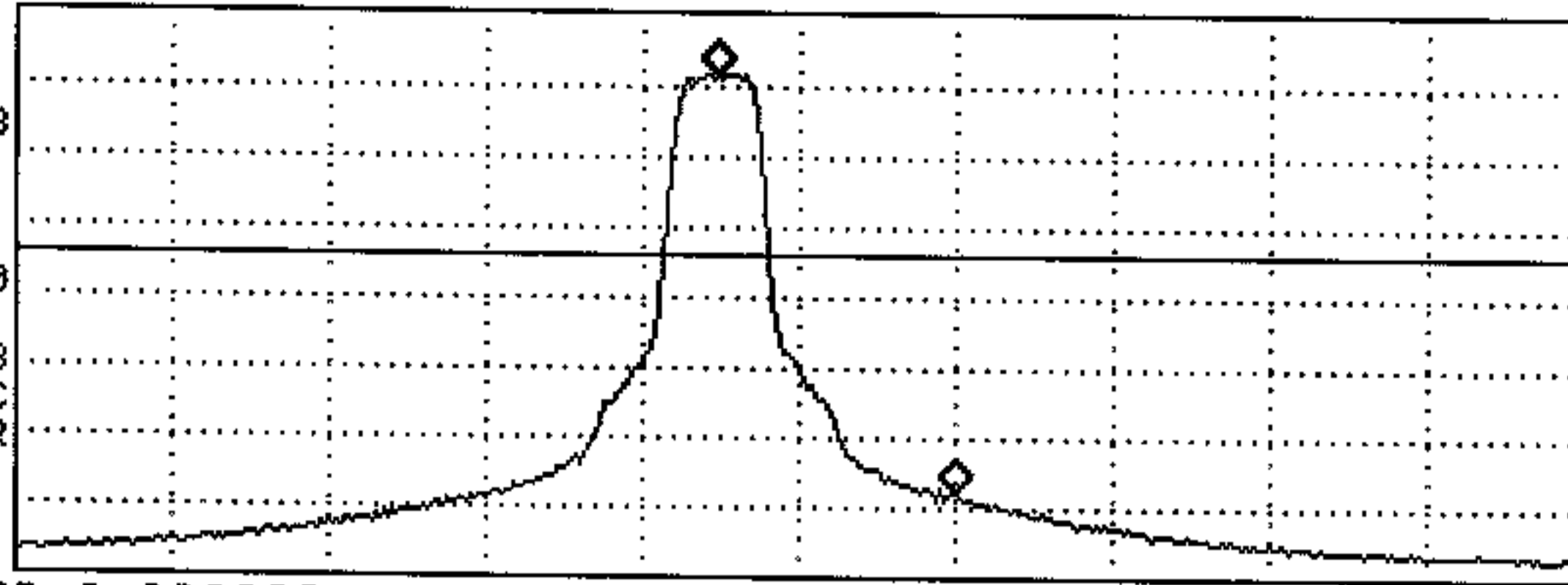
MARKER  $\Delta$   
381 kHz  
-59.16 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  381 kHz  
-59.16 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 16.1 dBm

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-18.0  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.686000 GHz SPAN 2.500 MHz  
#IF BW 10 kHz #AVG BW 10 kHz SWP 75.0 msec

MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

56

11:27:15 NOV 21, 2001  
TSI OUPP1804-2 QPSK 128K 2.68596Hz

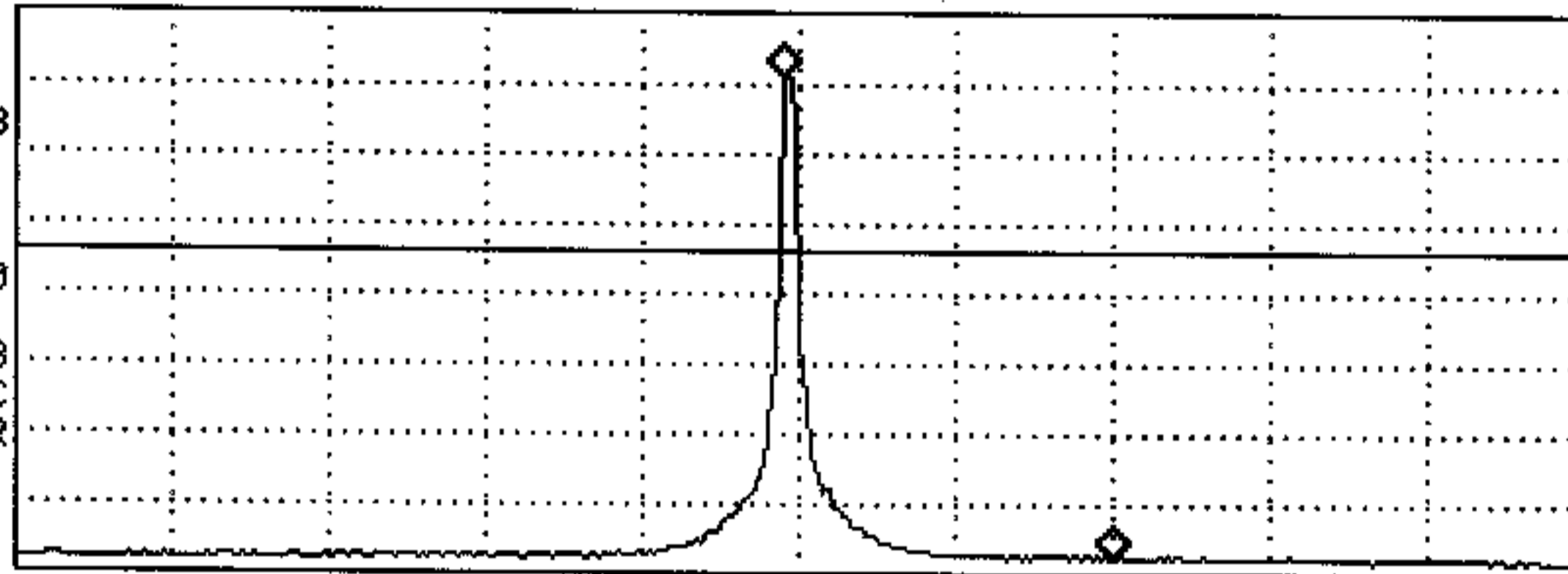
MARKER  $\Delta$   
3.15 MHz  
-68.39 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  3.15 MHz  
-68.39 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 16.1 dBm

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-18.0  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.686000 GHz SPAN 15.00 MHz  
#IF BW 10 kHz #AVG BW 10 kHz SWP 450 msec

MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

57

11:44:06 NOV 15, 2001  
TSI OUPP1804-2 QPSK 160K 2.6442GHz

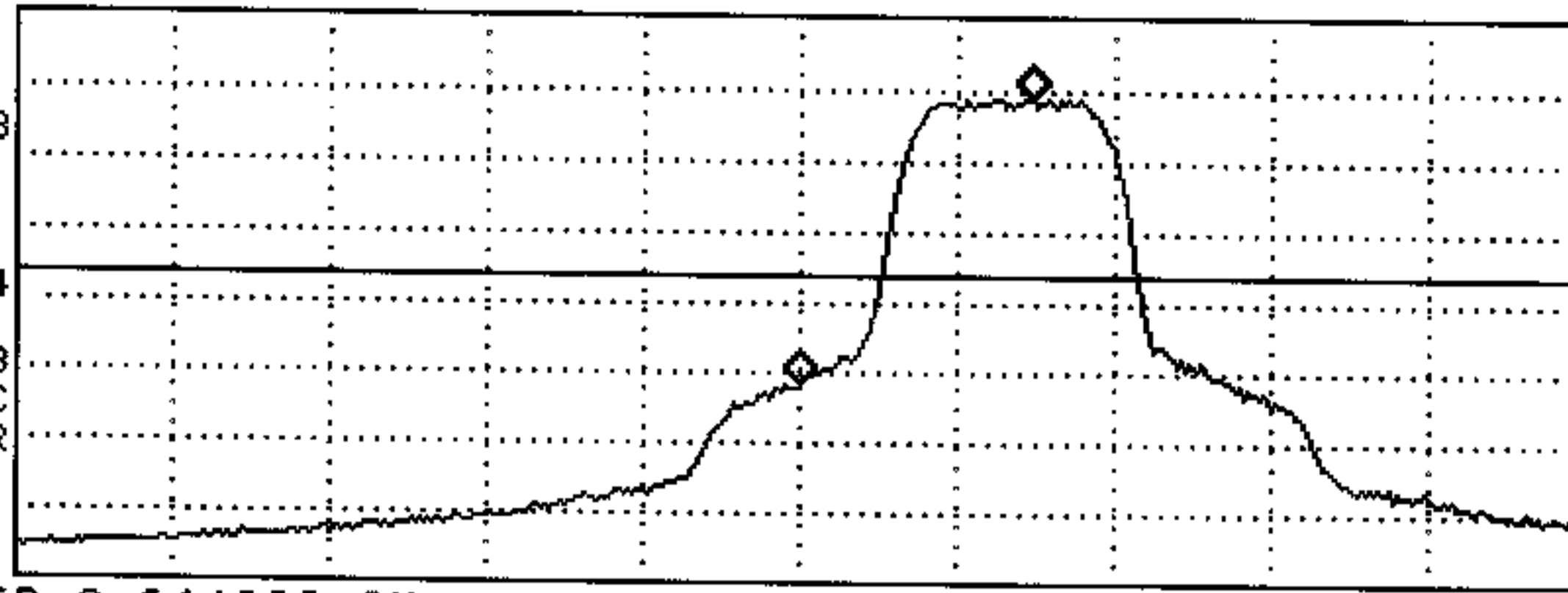
MARKER  $\Delta$   
-184 kHz  
-40.16 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  -184 kHz  
-40.16 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 18.1 dBm

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-18.4  
dBm  
VA SB  
SC FC  
CORR



MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

58

MARKER 1  
ON OFF

More  
1 of 3

11:46:57 NOV 15, 2001  
TSI OUPP1804-2 QPSK 160K 2.6442GHz

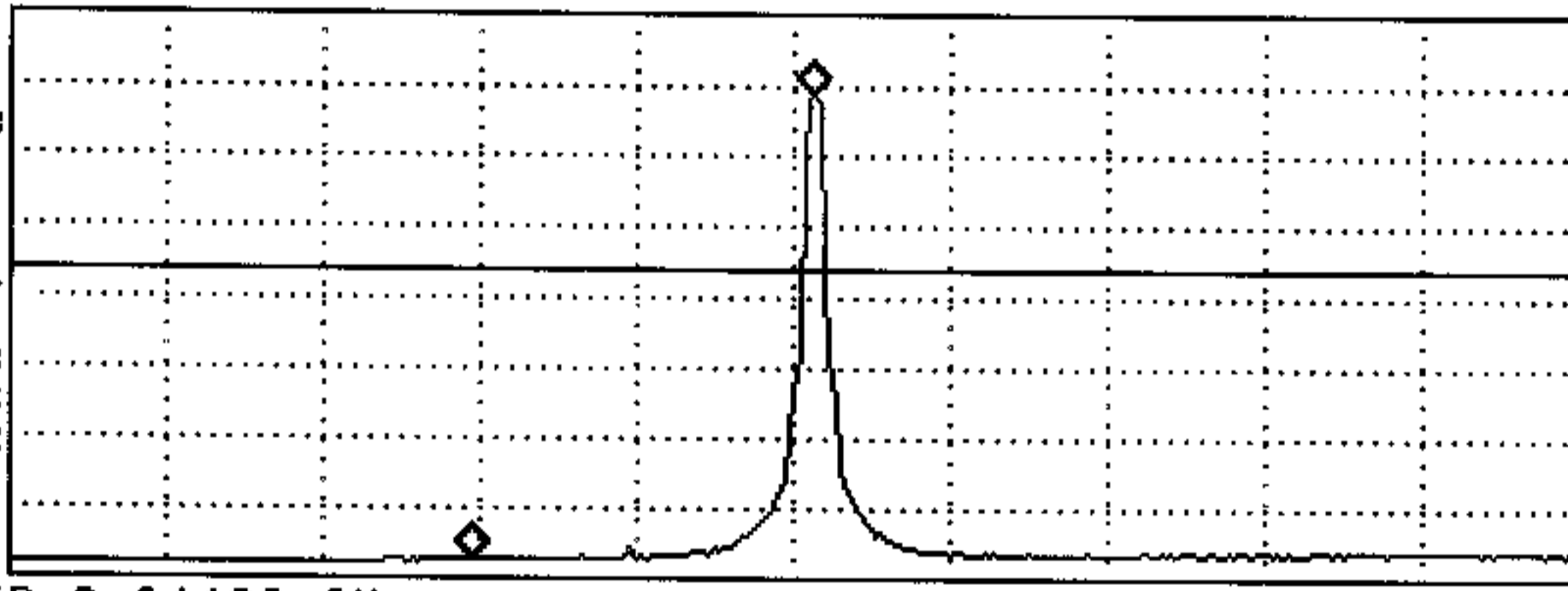
MARKER  $\Delta$   
-3.26 MHz  
-65.68 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  -3.26 MHz  
-65.68 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 18.1 dBm

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-18.4  
dBm  
VA SB  
SC FC  
CORR



MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

59

MARKER 1  
ON OFF

More  
1 of 3

11:20:26 NOV 21, 2001  
TSI OUPP1804-2 QPSK 160K 2.6859GHz

DISPLAY LINE  
-18.7 dBm

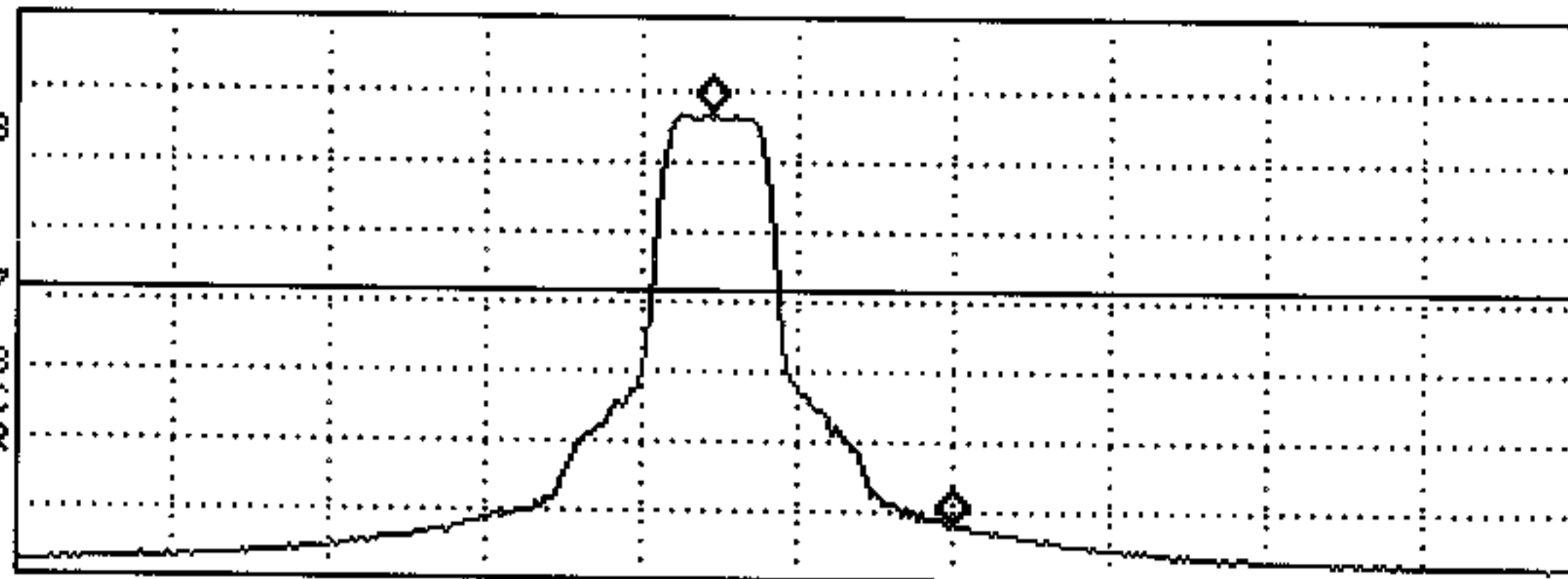
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 388 kHz  
-58.69 dB

HOLD

REF OFFST 12.1 dB  
REF 20.1 dBm

DSP LINE  
ON OFF

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-18.7  
dBm  
WA SB  
SC FC  
CORR



Change  
Title

Limit  
Lines

60

ANALOG+  
ON OFF

More  
1 of 2

CENTER 2.686000 GHz SPAN 2.500 MHz  
#IF BW 10 kHz #AVG BW 10 kHz SWP 75.0 msec

11:22:37 NOV 21, 2001  
TSI OUPP1804-2 QPSK 160K 2.6859GHz

MARKER Δ  
3.04 MHz  
-67.44 dB

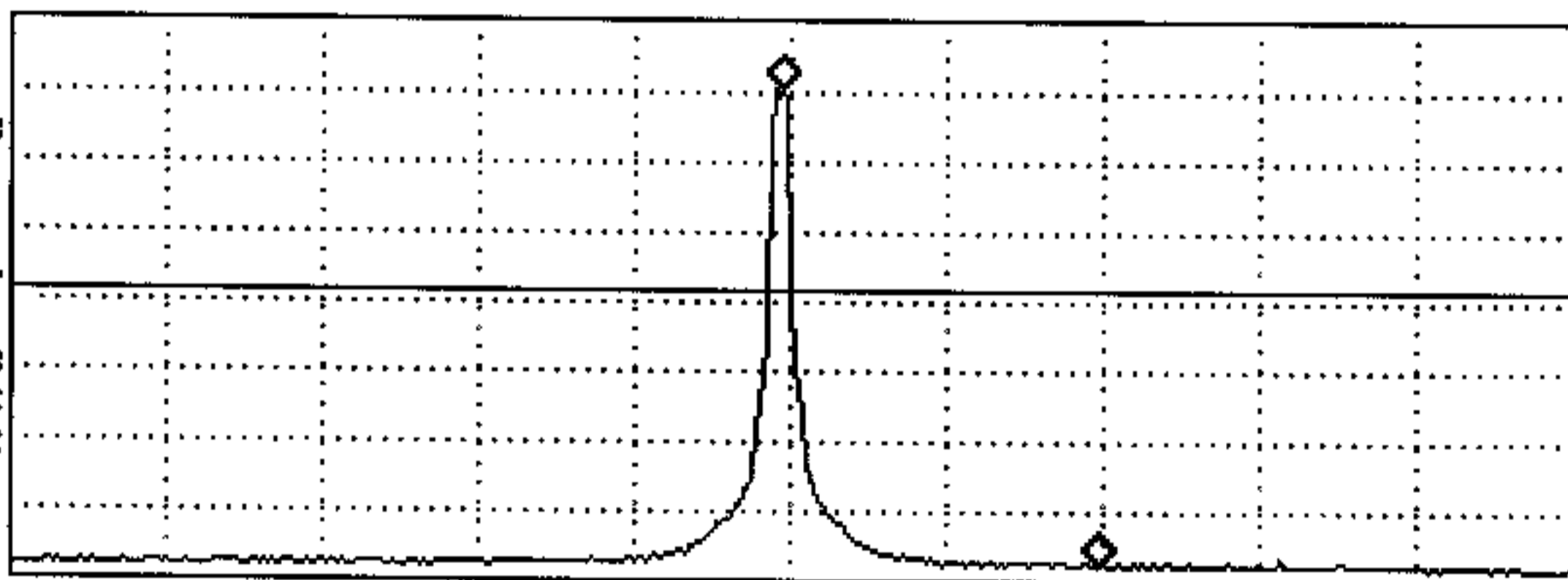
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 3.04 MHz  
-67.44 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 16.1 dBm

MARKER  
Δ

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-22.7  
dBm  
WA SB  
SC FC  
CORR



MARKER  
AMPTD

61

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.68600 GHz SPAN 15.00 MHz  
#IF BW 10 kHz #AVG BW 10 kHz SWP 450 msec

11:54:14 NOV 15, 2001  
TSI OUPP1804-2 QPSK 320K 2.6443GHz

MARKER  $\Delta$   
-366 kHz  
-36.15 dB

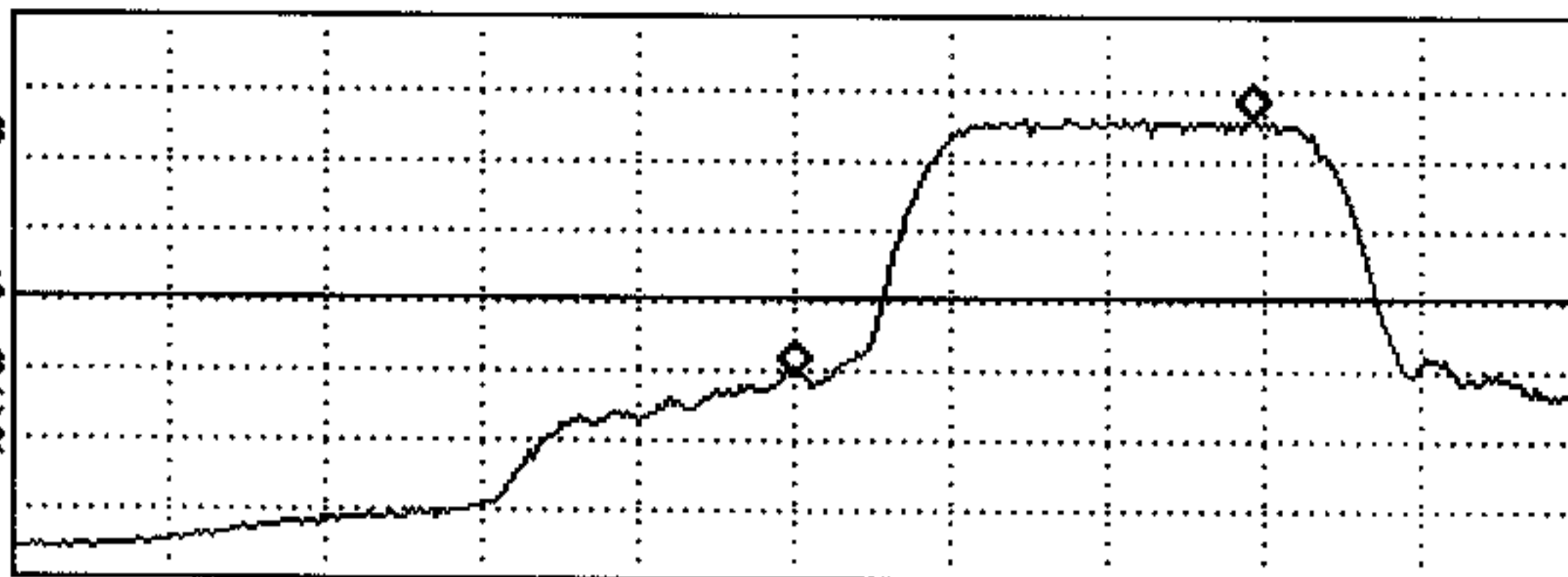
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  -366 kHz  
-36.15 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 18.1 dBm

MARKER  
 $\Delta$

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-21.6  
dBm  
VA SB  
SC FC  
CORR



MARKER  
AMPTD

68

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.644000 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 1.250 MHz  
SWP 37.5 msec

11:57:29 NOV 15, 2001  
TSI DUPP1804-2 QPSK 320K 2.6443GHz

MARKER  $\Delta$   
-3.30 MHz  
-68.96 dB

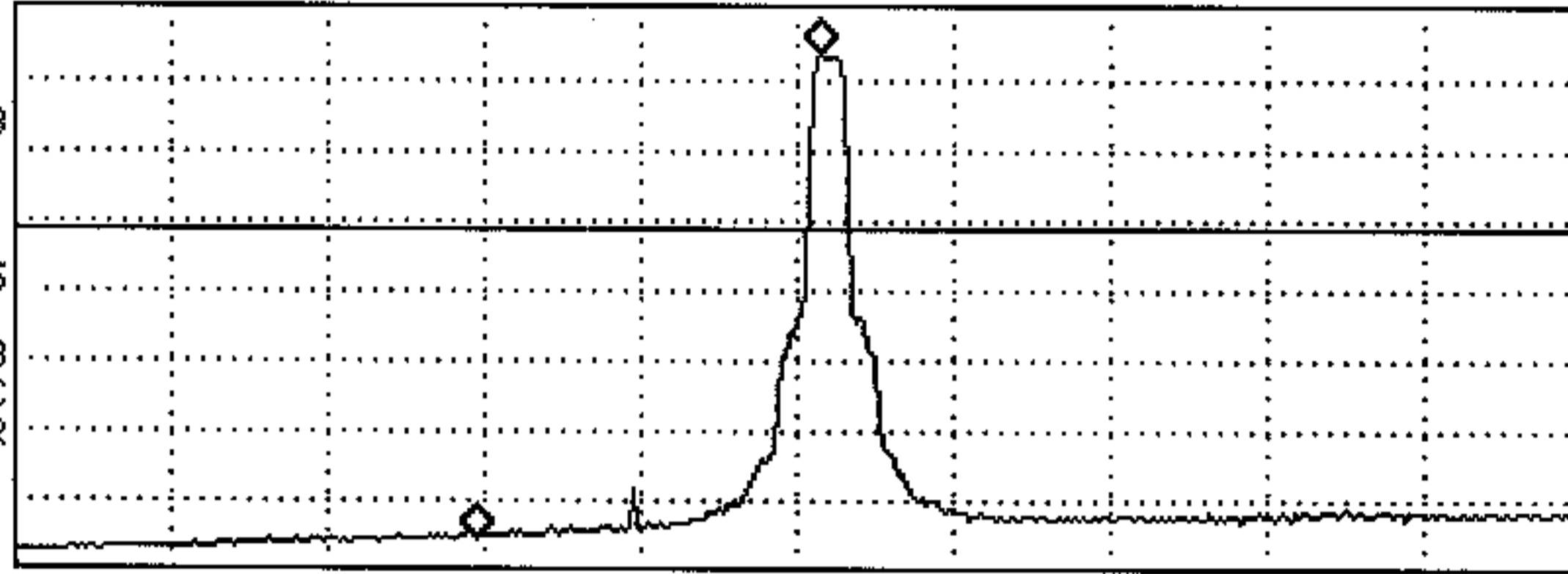
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA -3.30 MHz  
-68.96 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

MARKER  
 $\Delta$

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-21.5  
dBm  
VA SB  
SC FC  
CORR



MARKER  
AMPTD

63

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.64400 GHz SPAN 15.00 MHz  
#IF BW 10 kHz AVG BW 10 kHz SWP 450 msec

11:12:25 NOV 21, 2001  
TSI OUPP1804-2 QPSK 320K 2.6858GHz

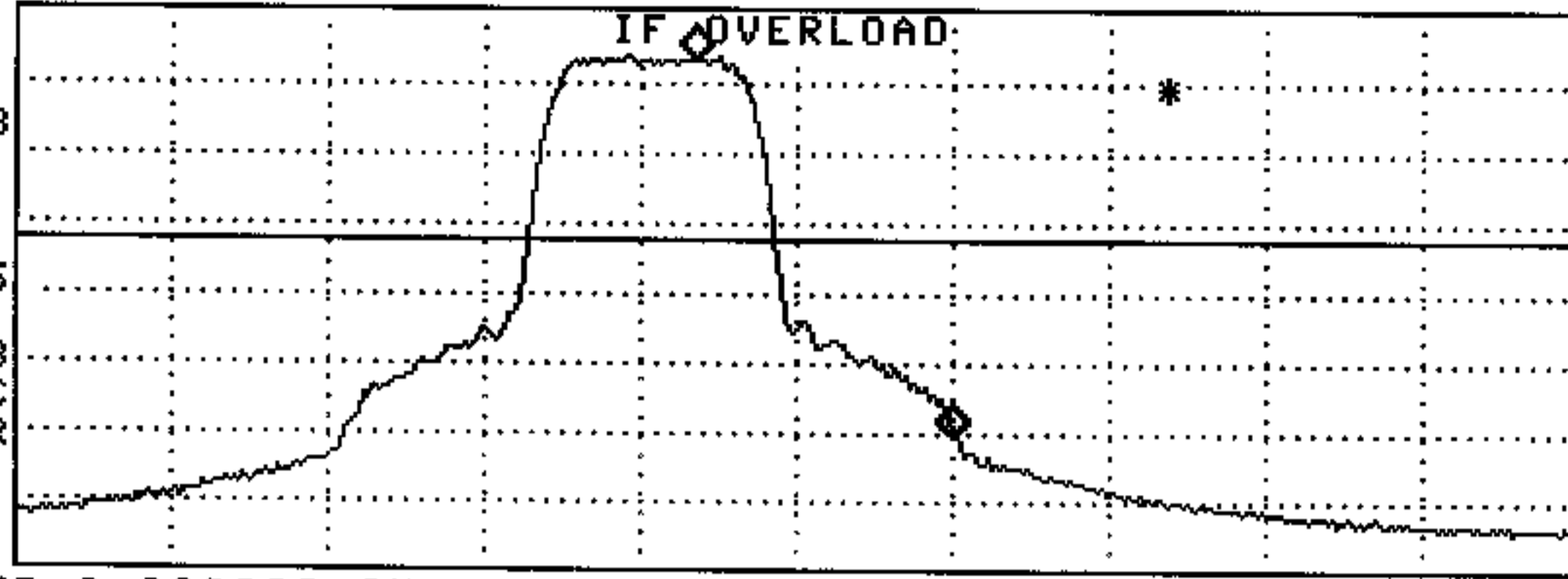
MARKER  $\Delta$   
413 kHz  
-53.66 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  413 kHz  
-53.66 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-22.5  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.686000 GHz SPAN 2.500 MHz  
#IF BW 10 kHz #AVG BW 10 kHz SWP 75.0 msec

MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

64

11:14:00 NOV 21, 2001  
TSI OUPP1804-2 QPSK 320K 2.6858GHz

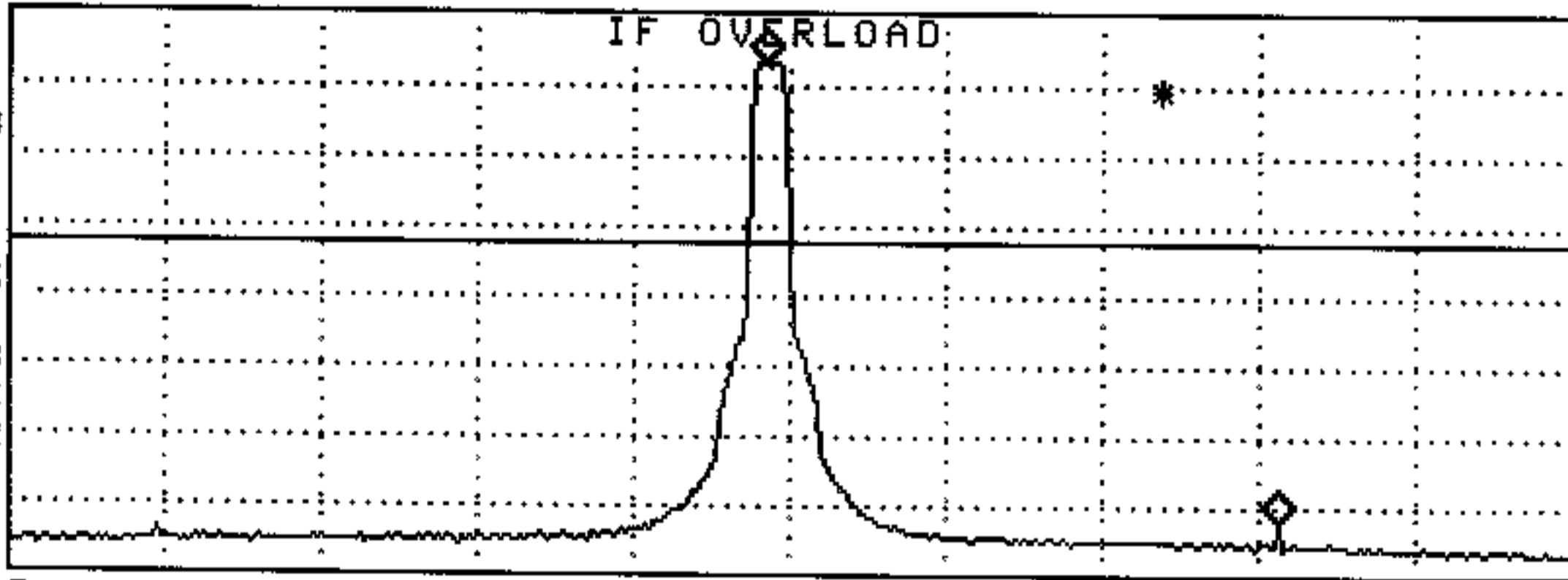
MARKER  $\Delta$   
4.91 MHz  
-65.35 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR  $\Delta$  4.91 MHz  
-65.35 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-22.5  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.686000 GHz SPAN 15.00 MHz  
#IF BW 10 kHz #AVG BW 10 kHz SWP 450 msec

MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

65

12:04:15 NOV 15, 2001

TSI OUPP1804-2 QPSK 512K 2.6444GHz

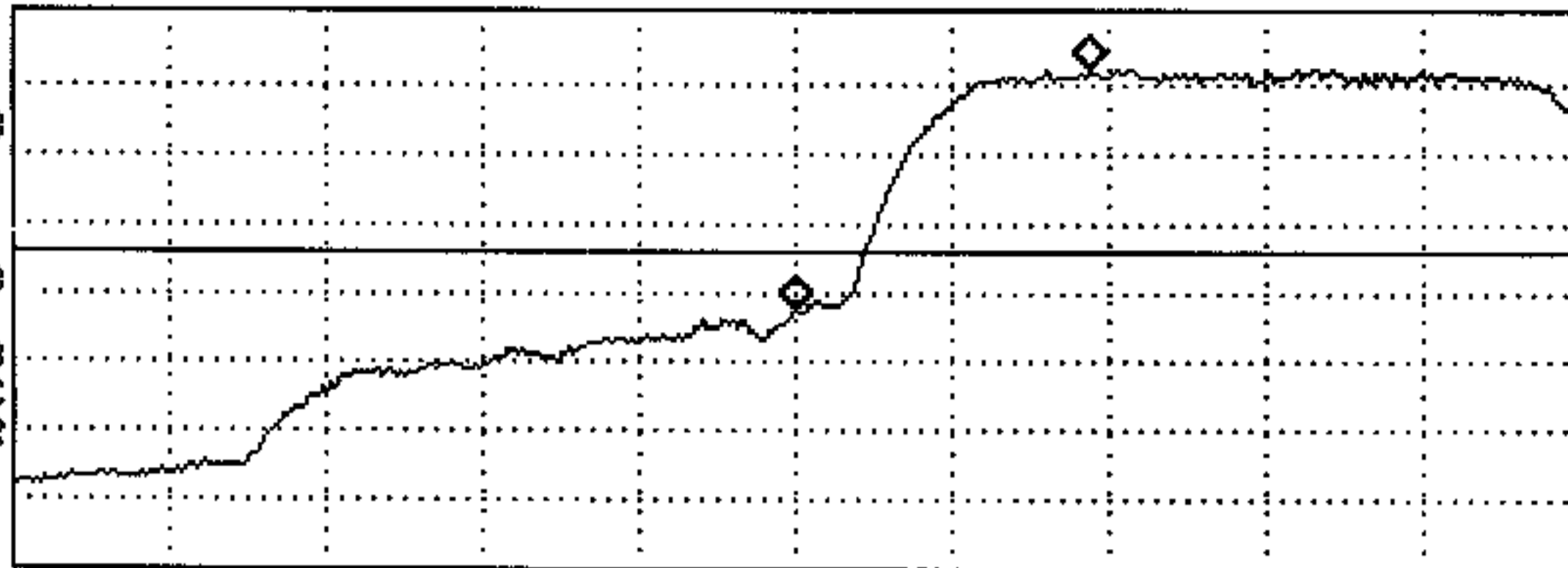
MARKER Δ  
-234 kHz  
-34.58 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -234 kHz  
-34.58 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-23.8  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.644000 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 1.250 MHz  
SWP 37.5 msec

66

12:05:02 NOV 15, 2001

TSI OUPP1804-2 QPSK 512K 2.6444GHz

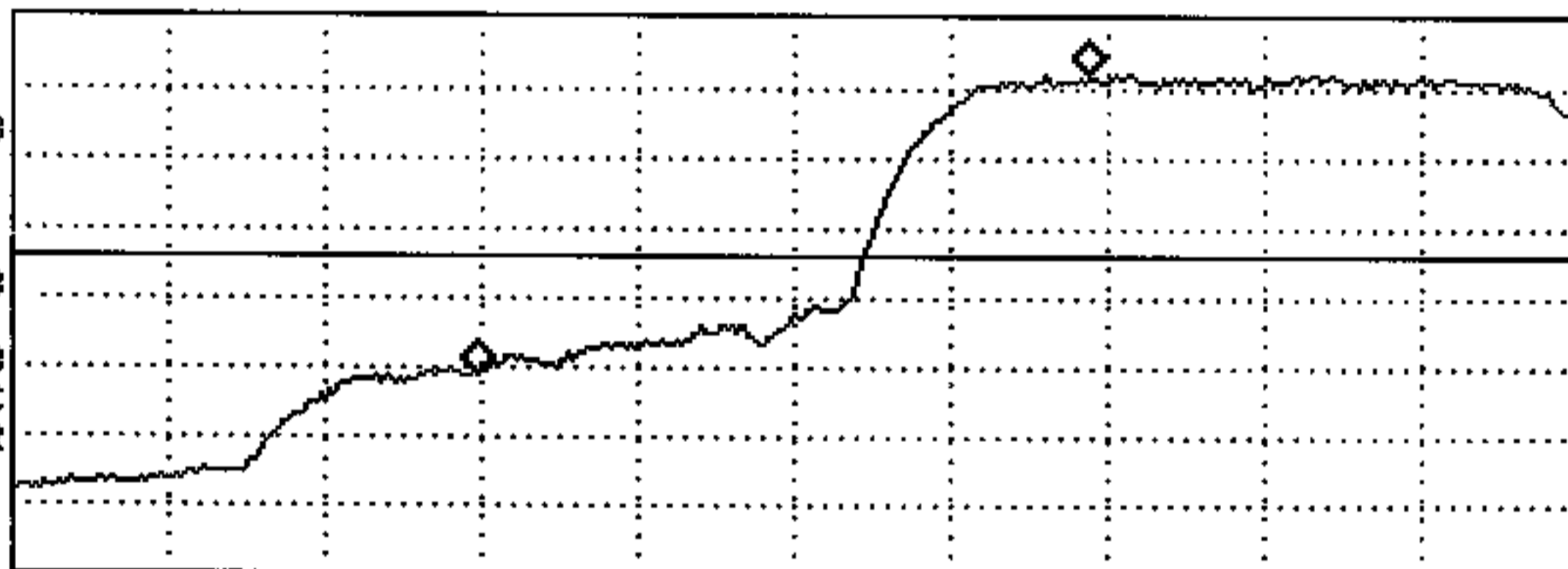
MARKER Δ  
-488 kHz  
-43.21 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -488 kHz  
-43.21 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-23.8  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.644000 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 1.250 MHz  
SWP 37.5 msec

67

12:06:58 NOV 15, 2001

TSI OUPP1804-2 QPSK 512K 2.6444GHz

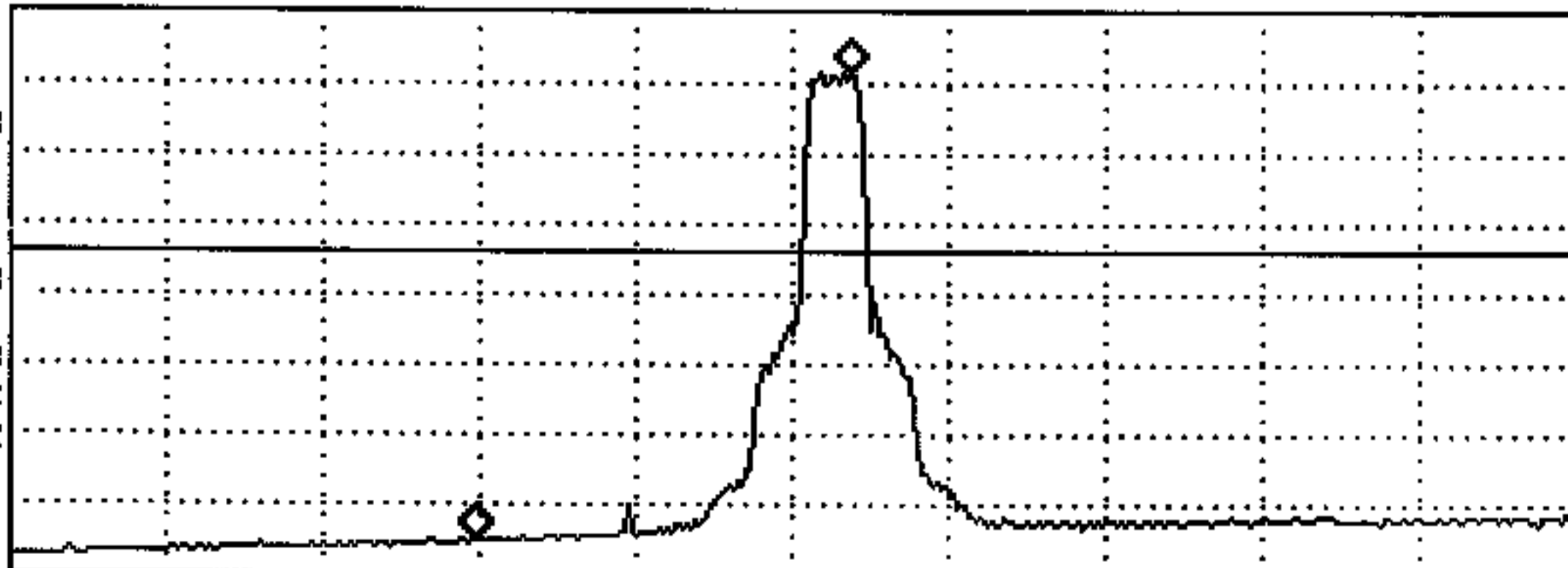
MARKER Δ  
-3.60 MHz  
-66.23 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -3.60 MHz  
-66.23 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-23.8  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.64400 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 15.00 MHz  
SWP 450 msec

68



11:03:59 NOV 21, 2001

TSI OUPP1804-2 QPSK 512K 2.68576Hz

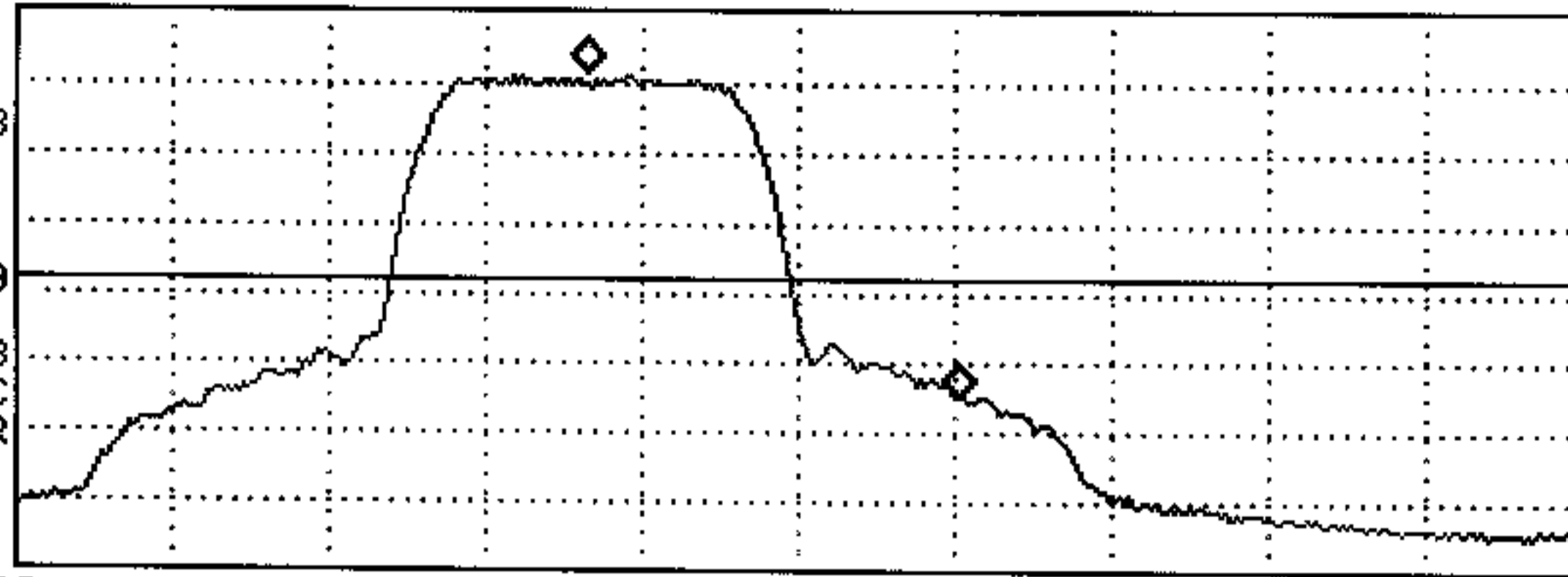
MARKER Δ  
594 kHz  
-46.26 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR Δ 594 kHz  
-46.26 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-27.9  
dBm  
WA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.686000 GHz  
#IF BW 10 kHz

#AVG BW 10 kHz

SPAN 2.500 MHz  
SWP 75.0 msec

69

11:06:09 NOV 21, 2001

TSI OUPP1804-2 QPSK 512K 2.68576Hz

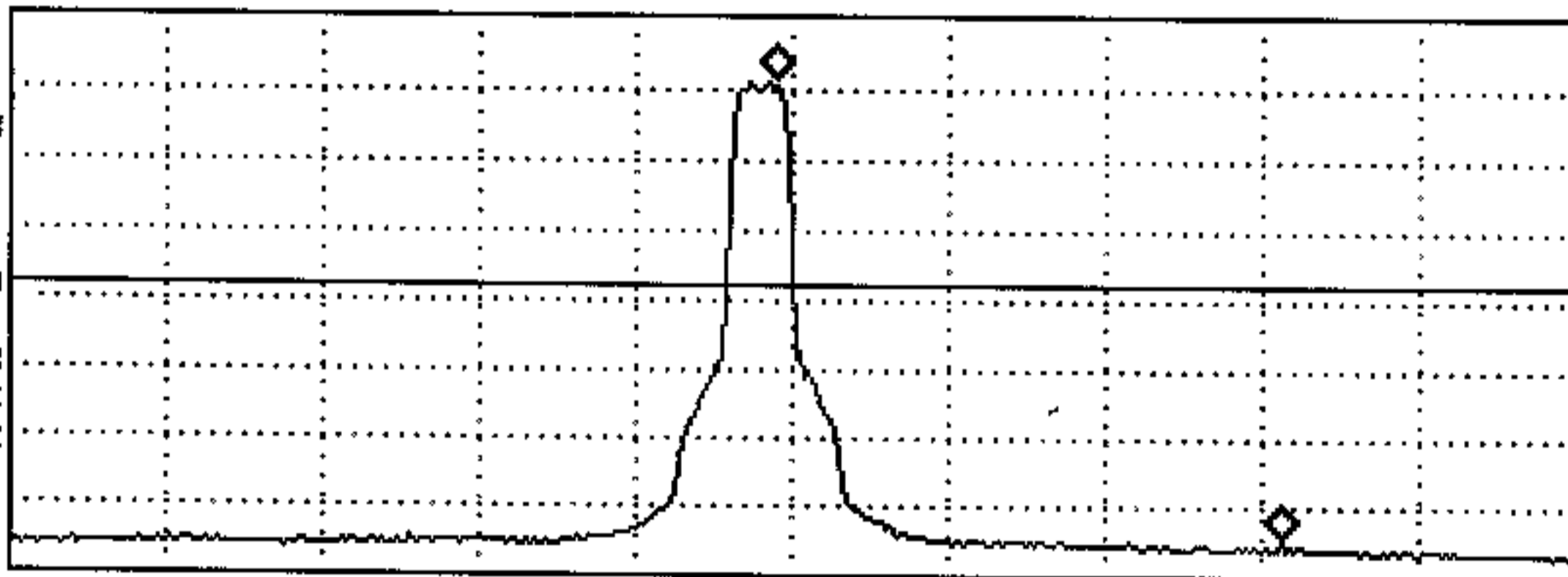
MARKER Δ  
4.84 MHz  
-65.24 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR Δ 4.84 MHz  
-65.24 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-27.9  
dBm  
WA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.68600 GHz  
#IF BW 10 kHz

#AVG BW 10 kHz

SPAN 15.00 MHz  
SWP 450 msec

70

12:12:17 NOV 15, 2001  
TSI OUPP1804-2 QPSK 640K 2.6446GHz

DISPLAY LINE  
-24.5 dBm

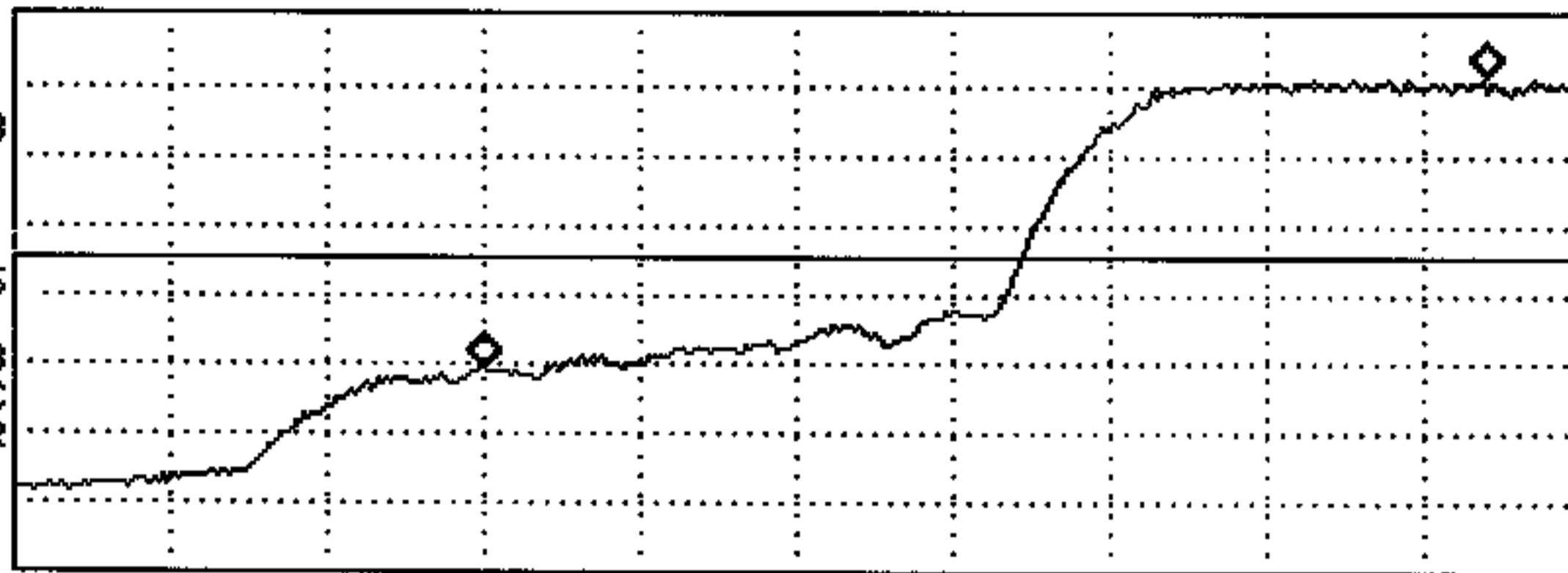
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -800 kHz  
-42.04 dB

HOLD

REF OFFST 12.1 dB  
REF 10.1 dBm

DSP LINE  
ON OFF

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-24.5  
dBm  
VA SB  
SC FC  
CORR



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

CENTER 2.644000 GHz  
#IF BW 10 kHz  
AVG BW 10 kHz  
SPAN 1.250 MHz  
SWP 37.5 msec

12:14:10 NOV 15, 2001  
TSI OUPP1804-2 QPSK 640K 2.6446GHz

MARKER Δ  
-3.71 MHz  
-65.98 dB

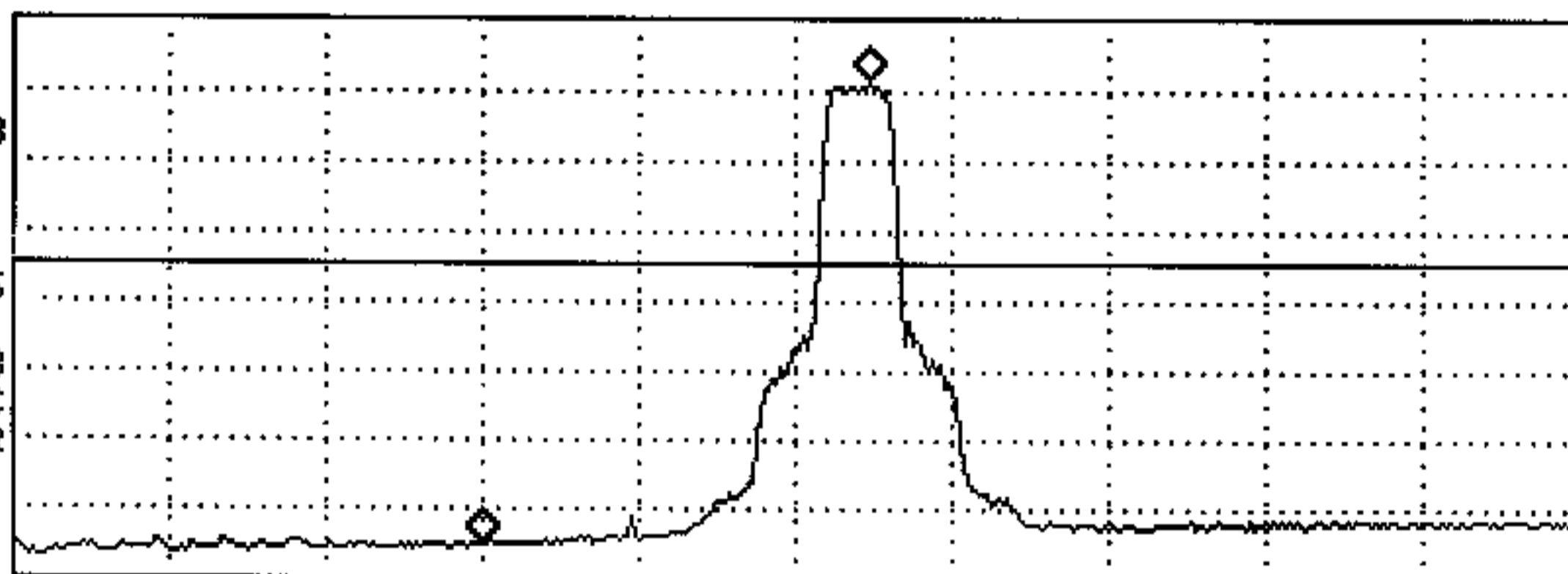
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -3.71 MHz  
-65.98 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

MARKER  
Δ

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-24.5  
dBm  
VA SB  
SC FC  
CORR



MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.64400 GHz  
#IF BW 10 kHz  
AVG BW 10 kHz  
SPAN 15.00 MHz  
SWP 450 msec

71

72

10:56:12 NOV 21, 2001  
TSI OUPP1804-2 QPSK 640K 2.6856GHz

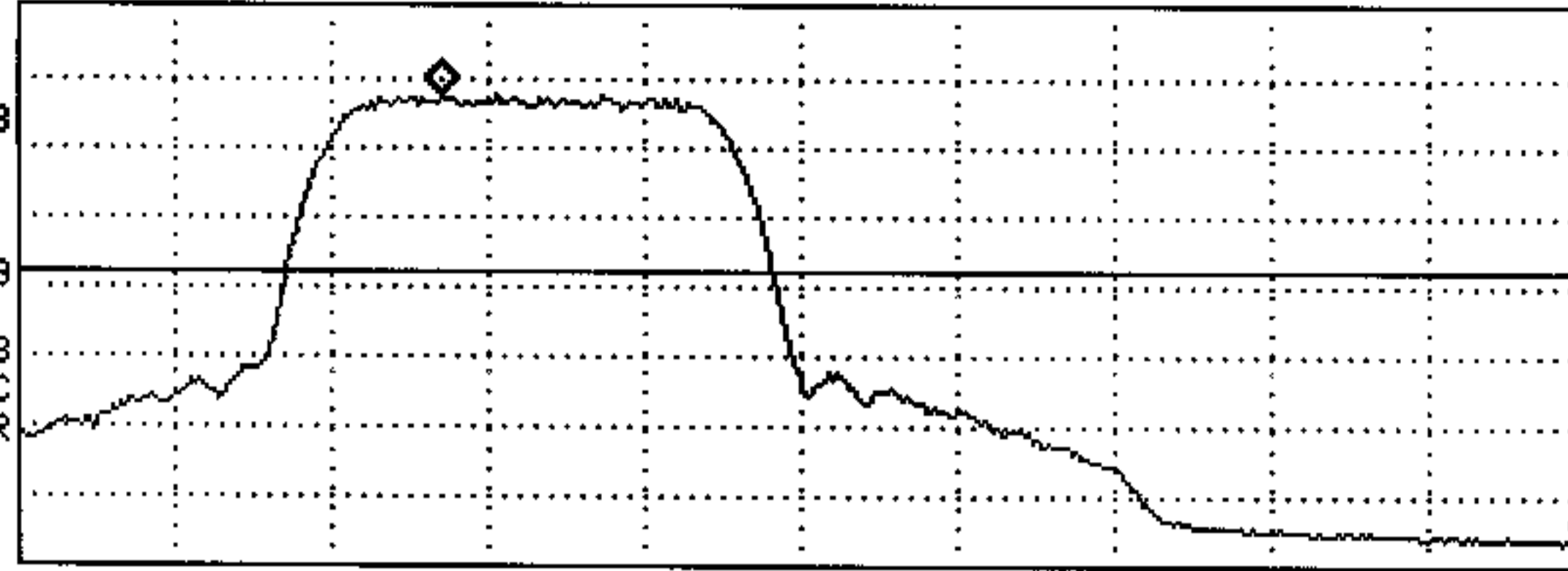
MARKER  $\Delta$   
1.825 MHz  
-63.29 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA 1.825 MHz  
-63.29 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 12.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-25.9  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.68500 GHz #IF BW 10 kHz #AVG BW 10 kHz SPAN 2.500 MHz SWP 75.0 msec

MARKER  $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

73

MARKER 1  
ON OFF

More  
1 of 3

10:59:18 NOV 21, 2001  
TSI OUPP1804-2 QPSK 640K 2.6856GHz

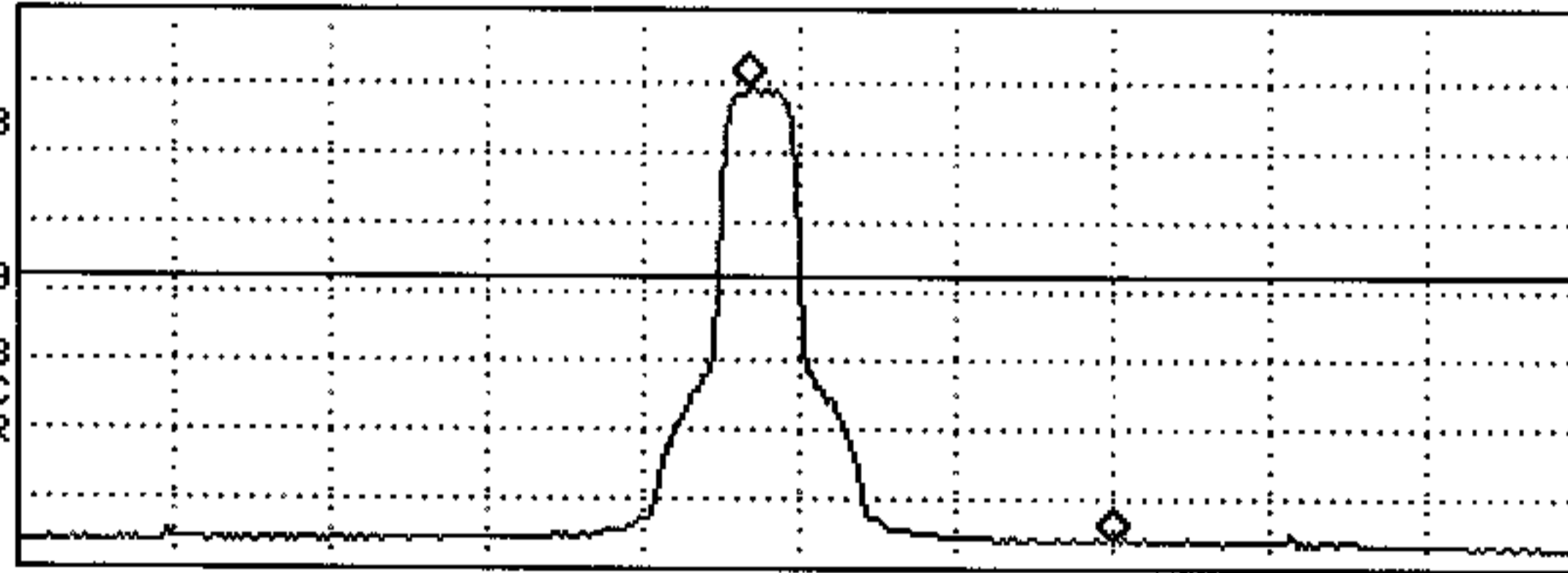
MARKER  $\Delta$   
3.49 MHz  
-65.13 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA 3.49 MHz  
-65.13 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 10.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-27.9  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.68500 GHz #IF BW 10 kHz #AVG BW 10 kHz SPAN 15.00 MHz SWP 450 msec

MARKER  $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

74

MARKER 1  
ON OFF

More  
1 of 3

12:21:53 NOV 15, 2001  
TSI OUPP1804-2 QPSK 800K 2.64496GHz

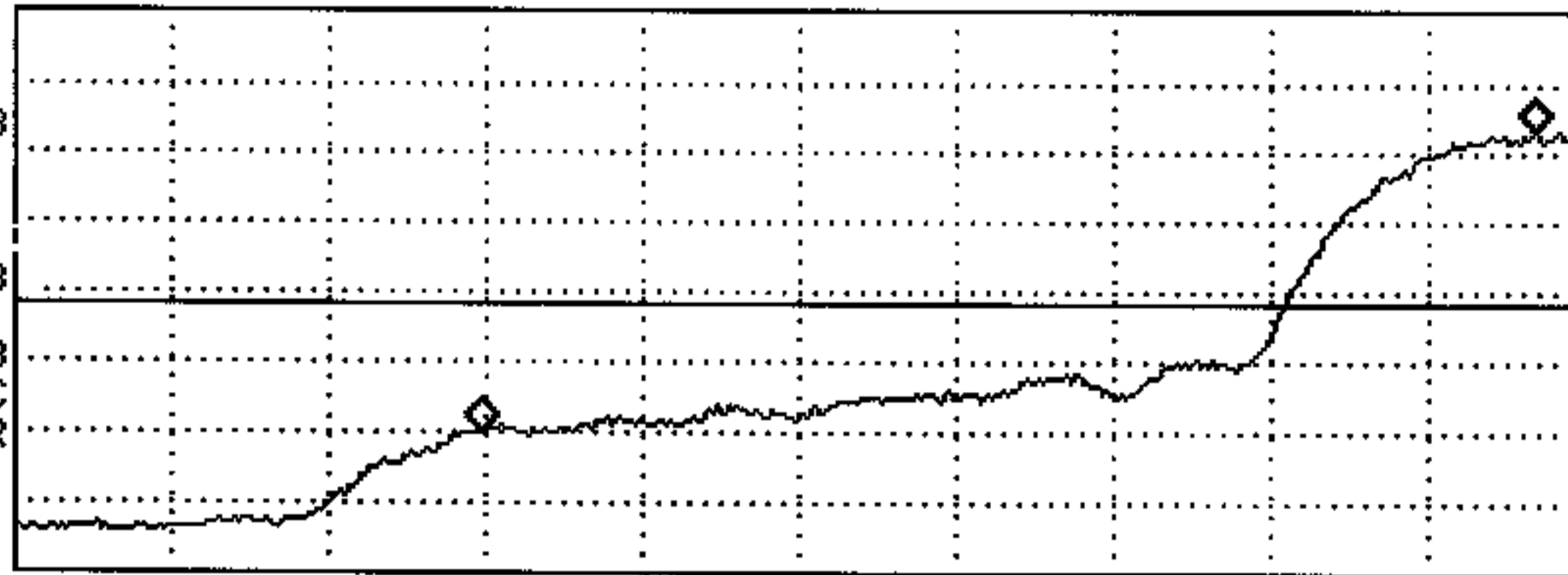
MARKER  $\Delta$   
-838 kHz  
-42.90 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR $\Delta$  -838 kHz  
-42.90 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 17.1 dBm

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-24.8  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.644000 GHz #IF BW 10 kHz AVG BW 10 kHz SPAN 1.250 MHz SWP 37.5 msec

MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

75

12:26:12 NOV 15, 2001  
TSI OUPP1804-2 QPSK 800K 2.64496GHz

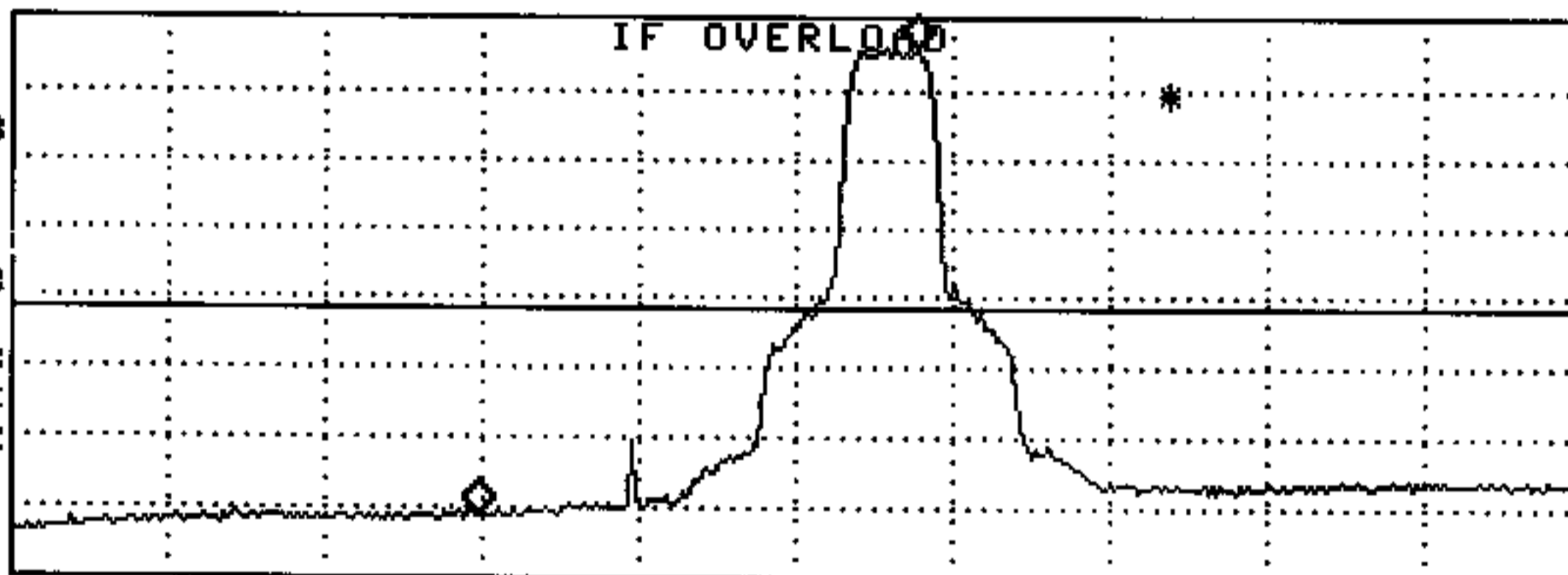
MARKER  $\Delta$   
-4.20 MHz  
-66.96 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKR $\Delta$  -4.20 MHz  
-66.96 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 4.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-37.8  
dBm  
WA SB  
SC FC  
CORR



CENTER 2.64400 GHz #IF BW 10 kHz AVG BW 10 kHz SPAN 15.00 MHz SWP 450 msec

MARKER  
 $\Delta$

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

76

14:43:22 NOV 15, 2001  
TSI OUPP1804-2 QPSK 800K 2.6854GHz

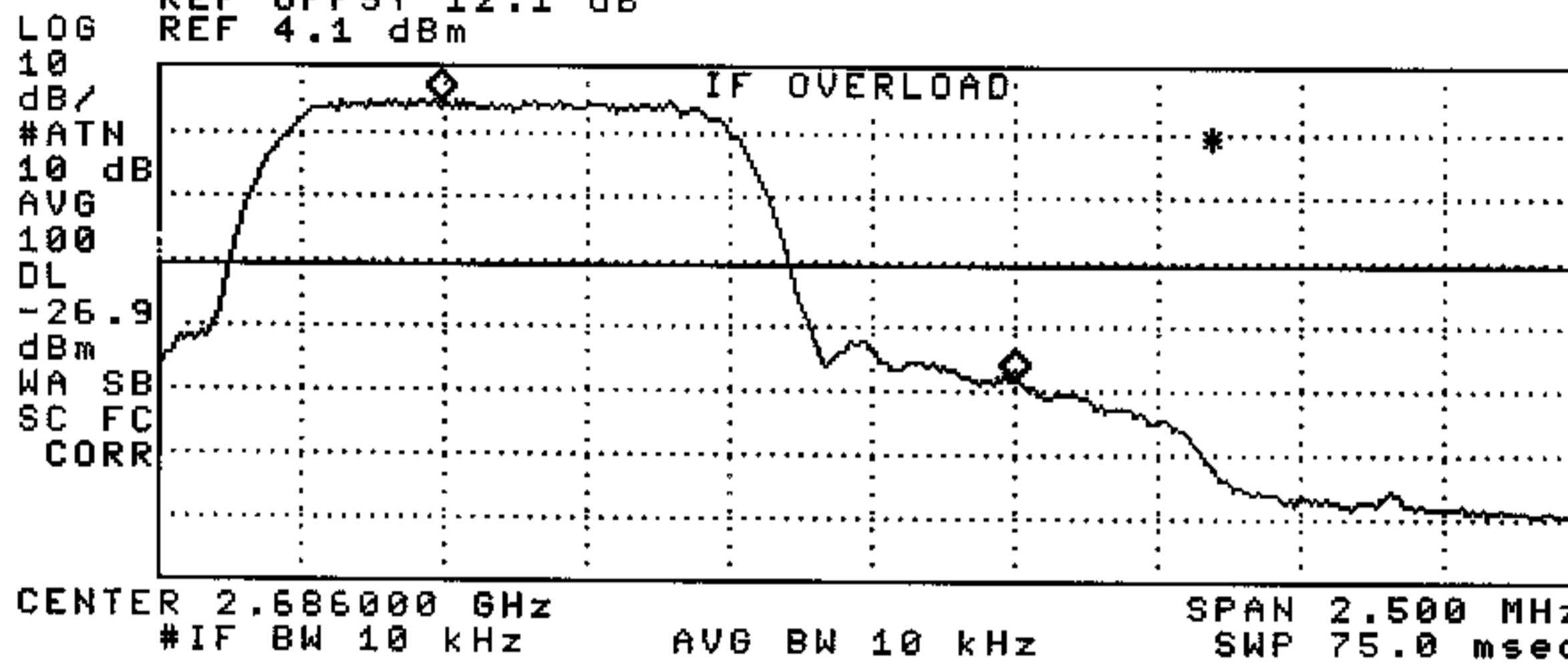
DISPLAY LINE  
-26.9 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 1.006 MHz  
-43.02 dB

HOLD

REF OFFST 12.1 dB  
REF 4.1 dBm

DSP LINE  
ON OFF



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

77

14:45:37 NOV 15, 2001  
TSI OUPP1804-2 QPSK 800K 2.6854GHz

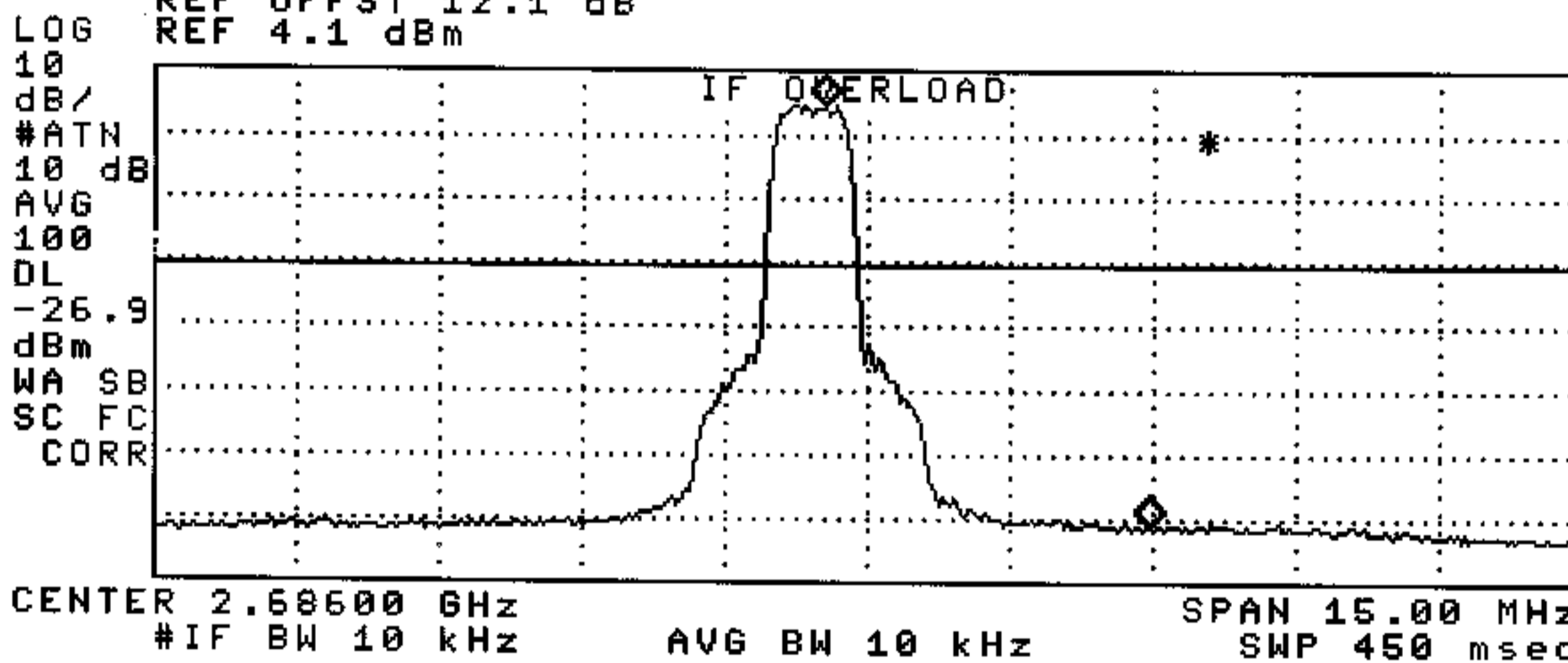
MARKER Δ  
3.41 MHz  
-65.90 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 3.41 MHz  
-65.90 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 4.1 dBm

MARKER  
Δ



MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

78

13:05:34 NOV 15, 2001

TSI OUPP1804-2 QPSK 1280K 2.6449GHz

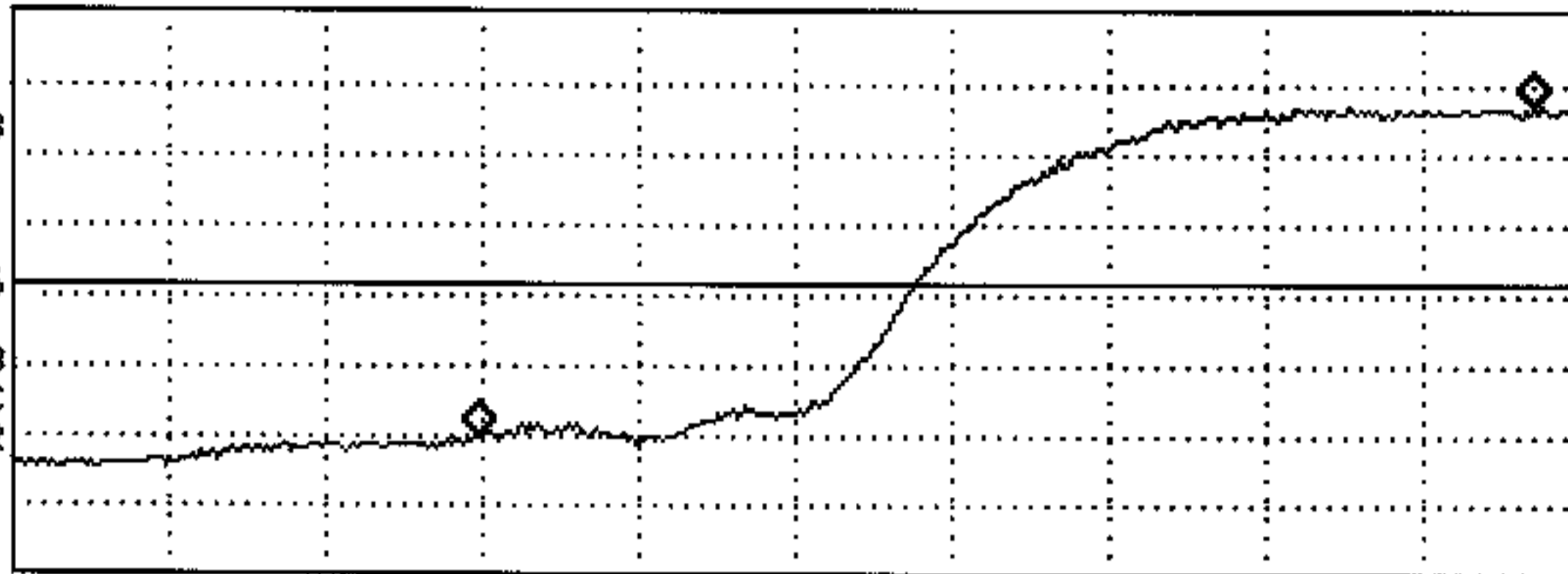
MARKER Δ  
-841 kHz  
-46.75 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -841 kHz  
-46.75 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF 4.1 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-34.6  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.644000 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 1.250 MHz  
SWP 37.5 msec

79

13:10:33 NOV 15, 2001

TSI OUPP1804-2 QPSK 1280K 2.6449GHz

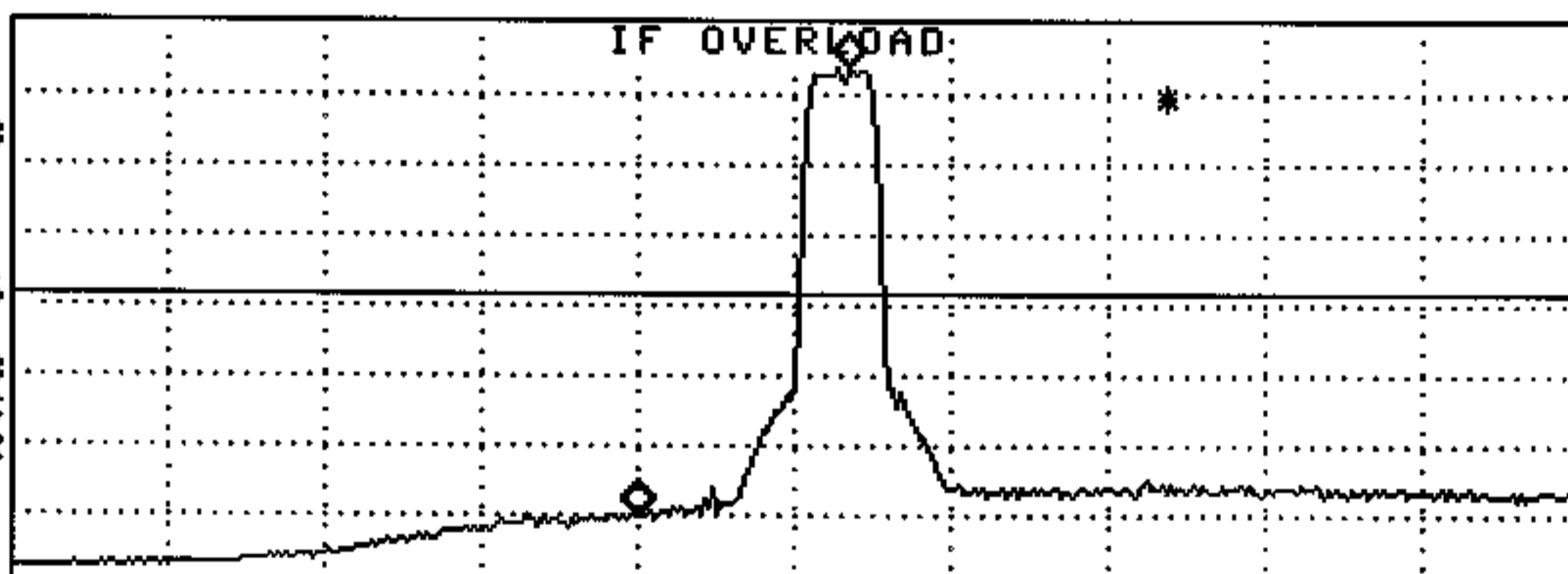
MARKER Δ  
-4.05 MHz  
-63.55 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -4.05 MHz  
-63.55 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF -2.9 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-41.6  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.64400 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 30.00 MHz  
SWP 900 msec

80

13:12:14 NOV 15, 2001

TSI OUPP1804-2 QPSK 1280K 2.6449GHz

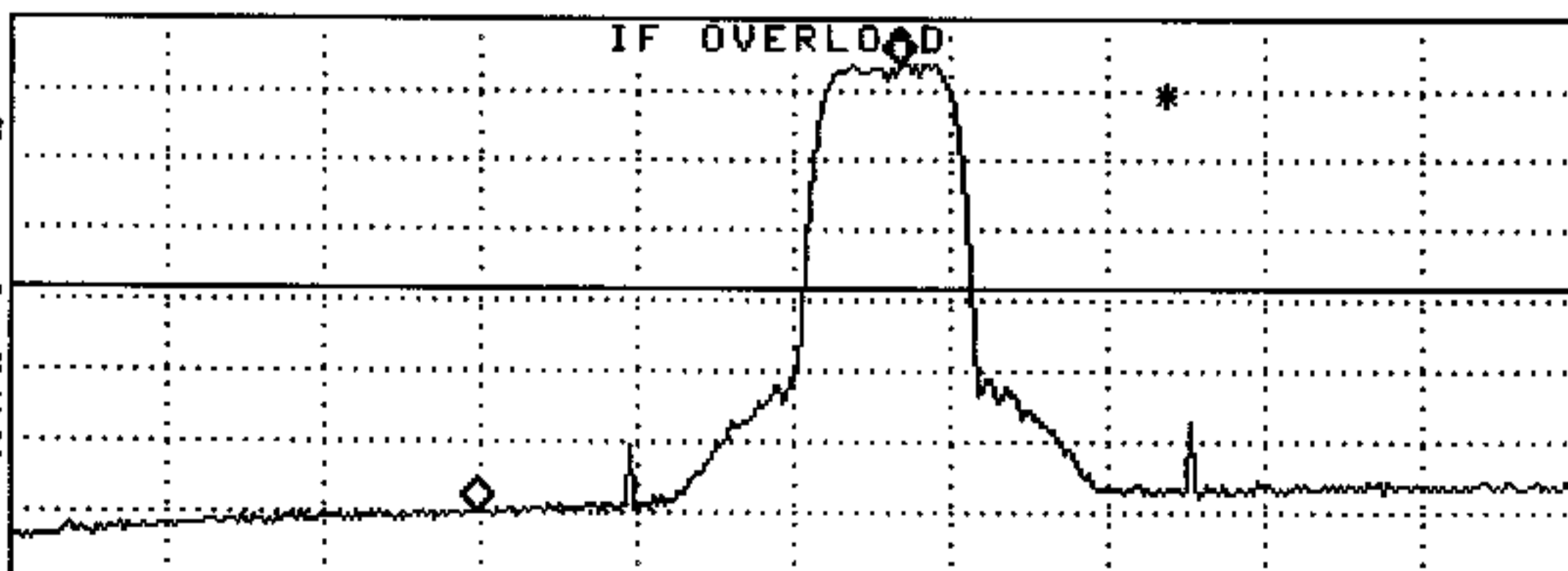
MARKER Δ  
-4.05 MHz  
-63.47 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -4.05 MHz  
-63.47 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF -2.9 dBm

LOG  
10  
dB/  
ATN  
10 dB  
AVG  
100  
DL  
-41.6  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.64400 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 15.00 MHz  
SWP 450 msec

81

14:36:17 NOV 15, 2001  
TSI OUPP1804-2 QPSK 1280K 2.68526Hz

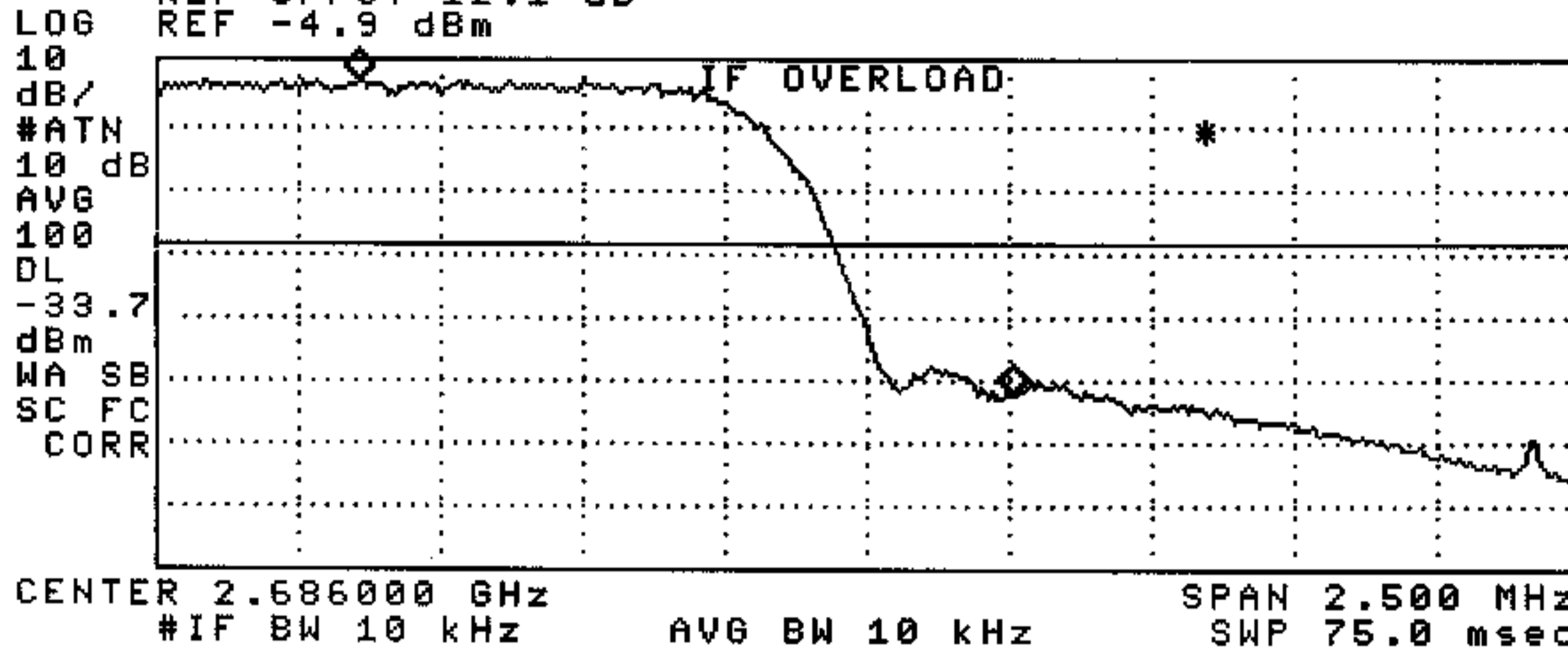
DISPLAY LINE  
-33.7 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 1.150 MHz  
-49.14 dB

HOLD

REF OFFST 12.1 dB  
REF -4.9 dBm

OSF LINE  
ON OFF



Change Title

Limit Lines

ANALOG+ ON OFF

More 1 of 2

82

14:37:38 NOV 15, 2001  
TSI OUPP1804-2 QPSK 1280K 2.68526Hz

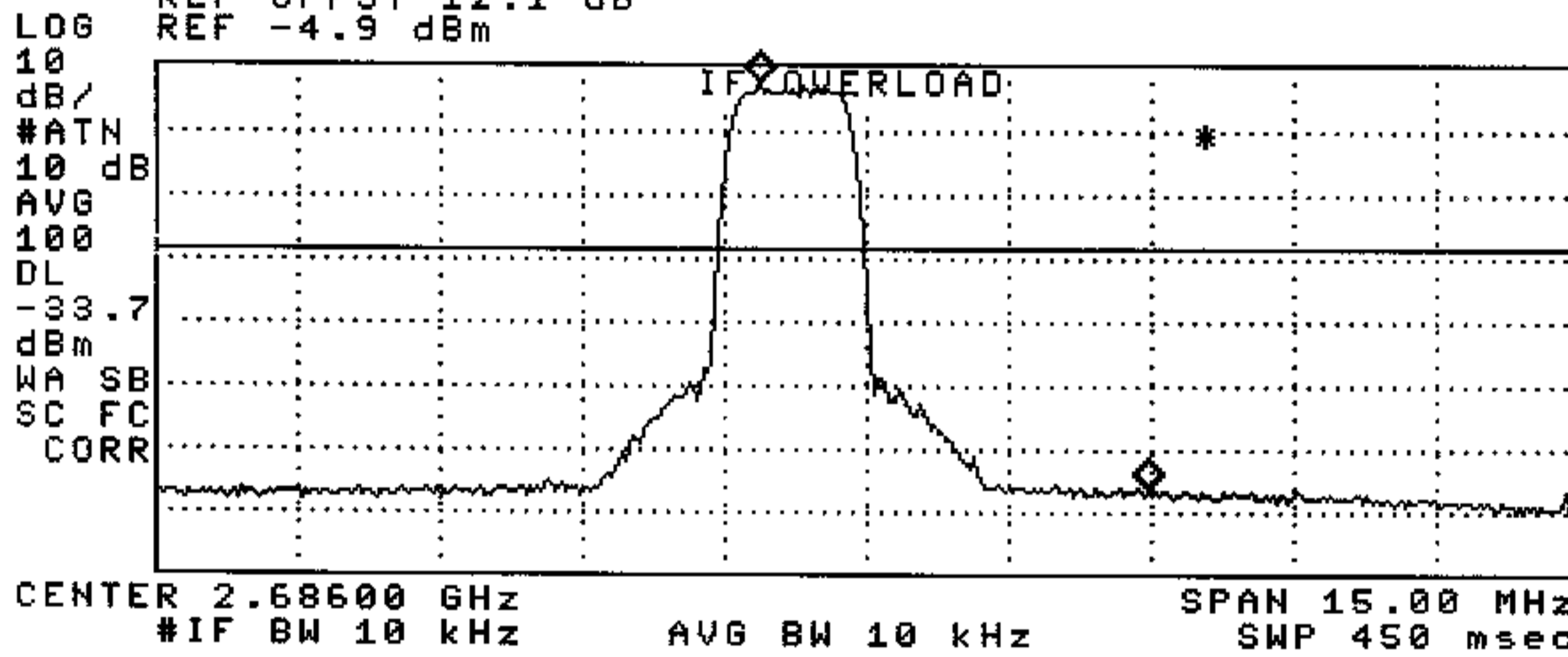
MARKER Δ  
4.09 MHz  
-63.37 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 4.09 MHz  
-63.37 dB

MARKER NORMAL

REF OFFST 12.1 dB  
REF -4.9 dBm

MARKER Δ



MARKER AMPTD

SELECT 1 2 3 4

MARKER 1 ON OFF

More 1 of 3

83

13:41:28 NOV 15, 2001  
TSI OUPP1804-2 QPSK 1544K 2.645GHz

DISPLAY LINE  
-32.4 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA -1.463 MHz  
-41.35 dB

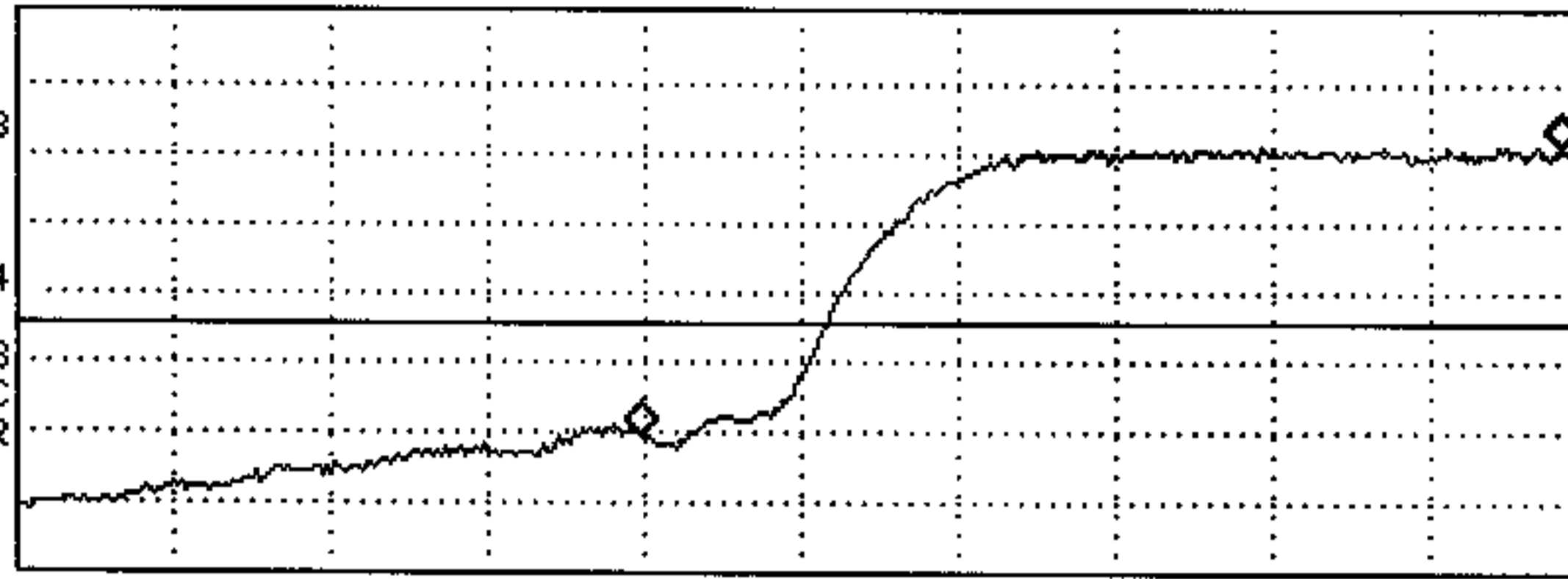
HOLD

REF OFFST 12.1 dB  
REF 12.1 dBm

AUTORANGE ON

DSP LINE  
ON OFF

LOG  
10  
dB/  
ATN  
20 dB  
AVG  
100  
DL  
-32.4  
dBm  
VA SB  
SC FC  
CORR



Change  
Title

Limit  
Lines

84

ANALOG+  
ON OFF

More  
1 of 2

CENTER 2.644000 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 2.500 MHz  
SWP 75.0 msec

13:49:01 NOV 15, 2001  
TSI OUPP1804-2 QPSK 1544K 2.645GHz

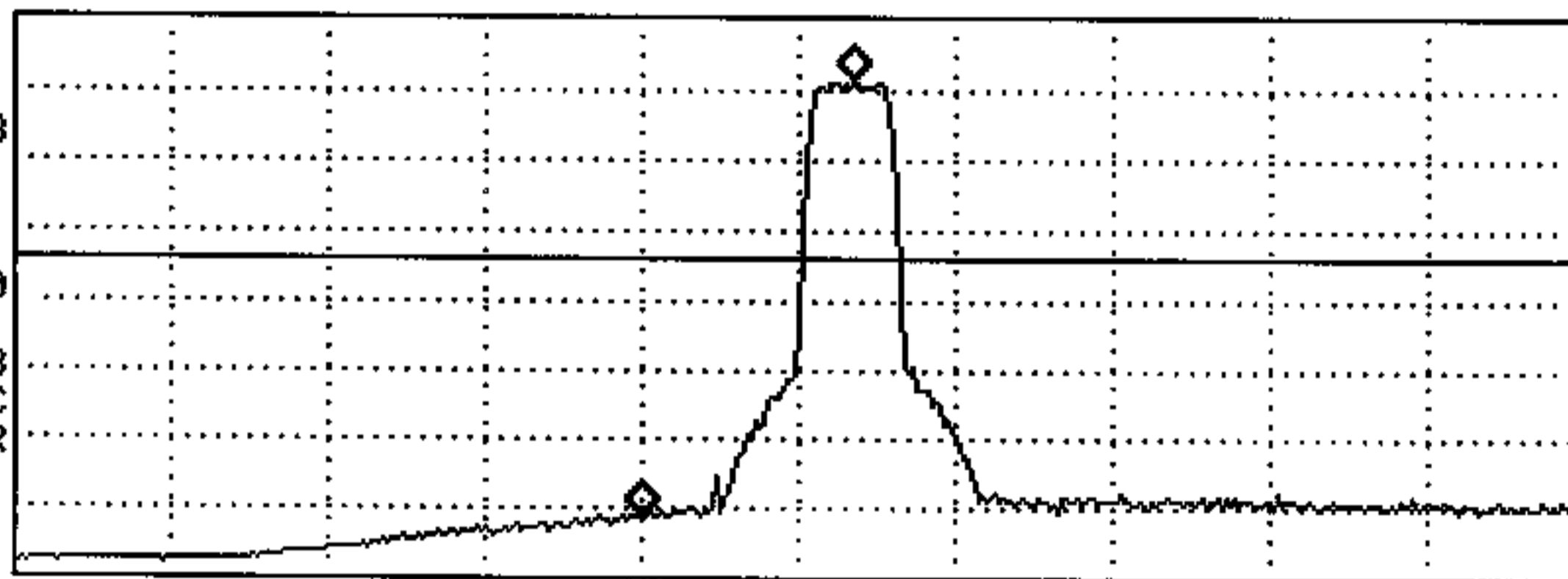
MARKER Δ  
-4.05 MHz  
-62.46 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA -4.05 MHz  
-62.46 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF .1 dBm

LOG  
10  
dB/  
#ATN  
10 dB  
AVG  
100  
DL  
-34.0  
dBm  
VA SB  
SC FC  
CORR



MARKER  
Δ

MARKER  
AMPTD

85

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.64400 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 30.00 MHz  
SWP 900 msec



14:31:43 NOV 15, 2001  
TSI OUPP1804-2 QPSK 1544K 2.6848GHz

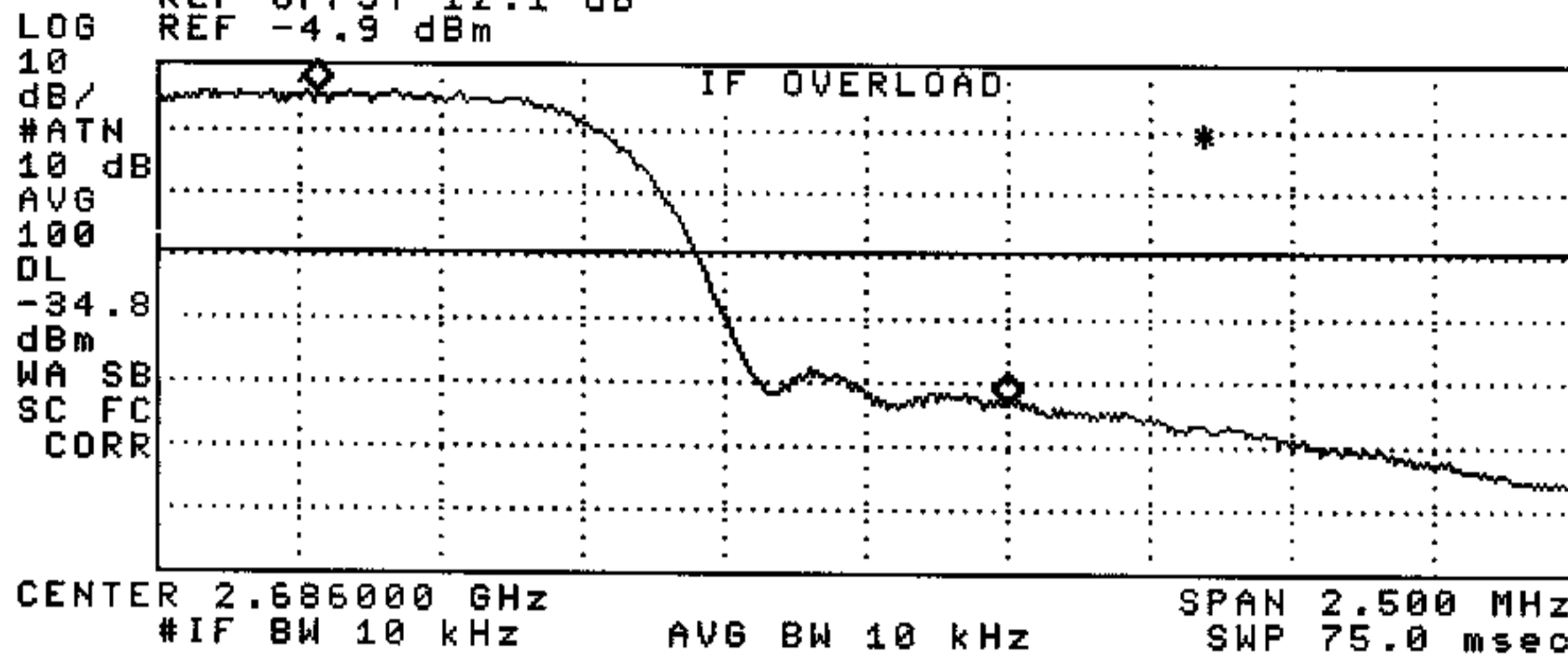
DISPLAY LINE  
-34.8 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA 1.219 MHz  
-48.80 dB

HOLD

REF OFFST 12.1 dB  
REF -4.9 dBm

DISP LINE  
ON OFF



Change Title

Limit Lines

ANALOG+ ON OFF

More 1 of 2

86

14:33:19 NOV 15, 2001  
TSI OUPP1804-2 QPSK 1544K 2.6848GHz

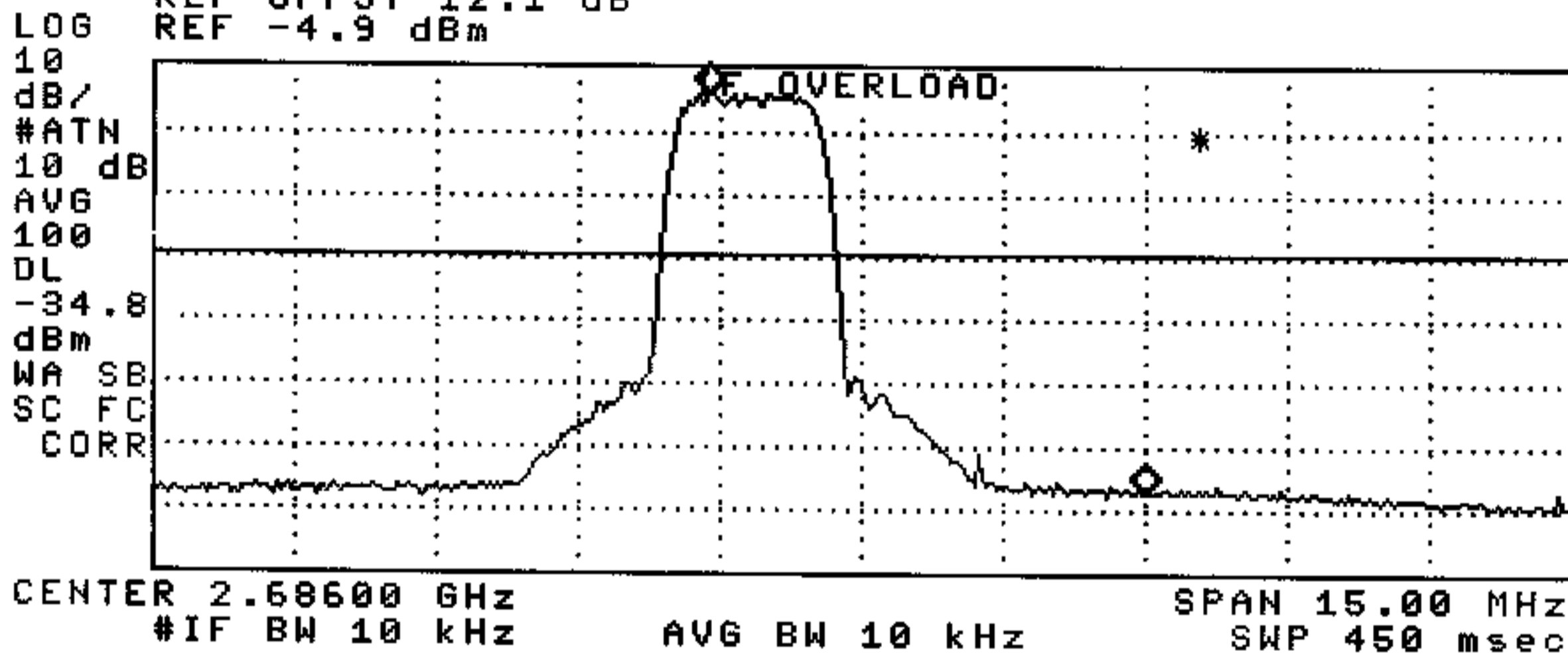
MARKER Δ  
4.61 MHz  
-63.19 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRA 4.61 MHz  
-63.19 dB

MARKER NORMAL

REF OFFST 12.1 dB  
REF -4.9 dBm

MARKER Δ



MARKER AMPTD

SELECT 1 2 3 4

MARKER 1 ON OFF

More 1 of 3

87

13:53:28 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2048K 2.6453GHz

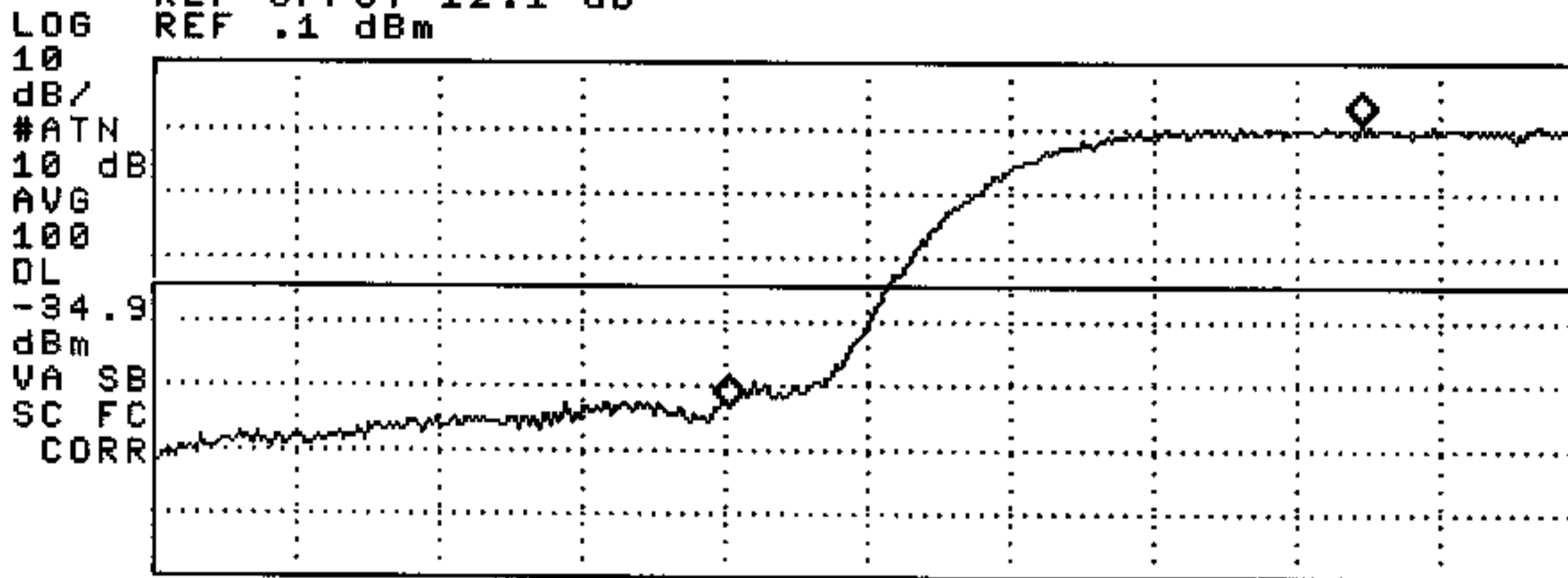
DISPLAY LINE  
-34.9 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -1.106 MHz  
-43.78 dB

HOLD

REF OFFST 12.1 dB  
REF .1 dBm

DSP LINE  
ON OFF



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

88

CENTER 2.644000 GHz  
#IF BW 10 kHz  
AVG BW 10 kHz  
SPAN 2.500 MHz  
SWP 75.0 msec

13:56:34 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2048K 2.6453GHz

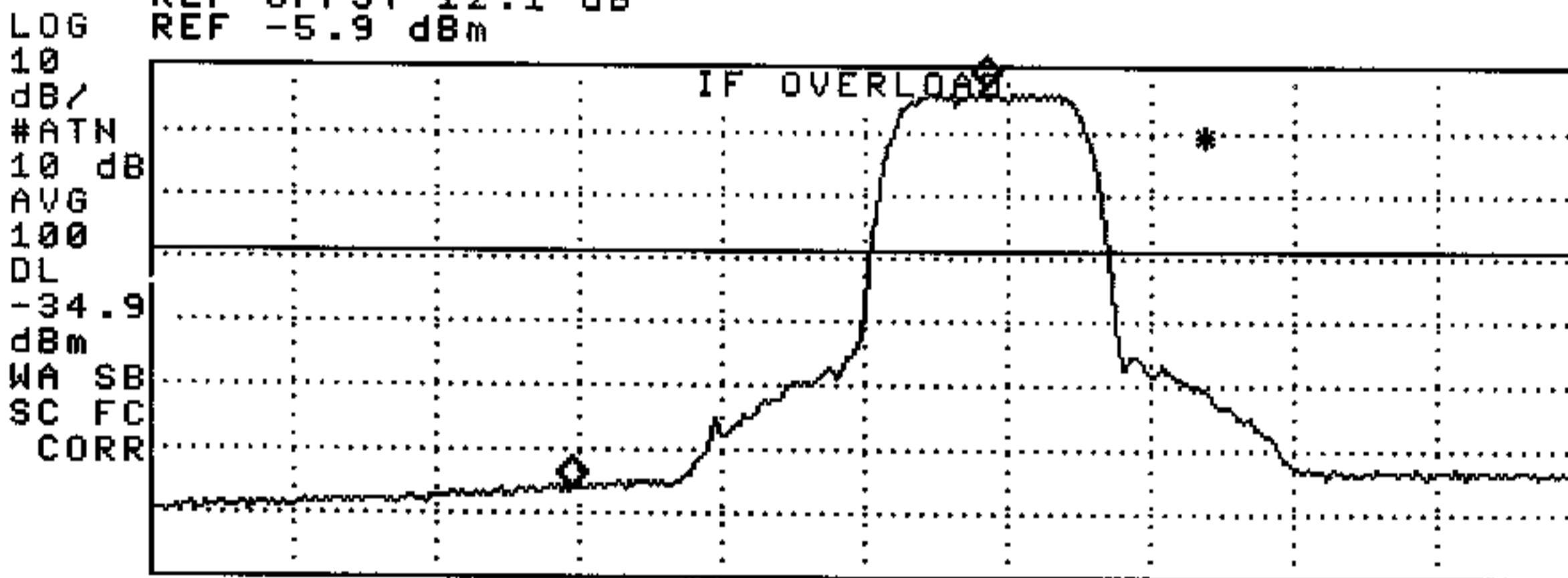
DISPLAY LINE  
-34.9 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -4.35 MHz  
-62.69 dB

HOLD

REF OFFST 12.1 dB  
REF -5.9 dBm

DSP LINE  
ON OFF



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

89

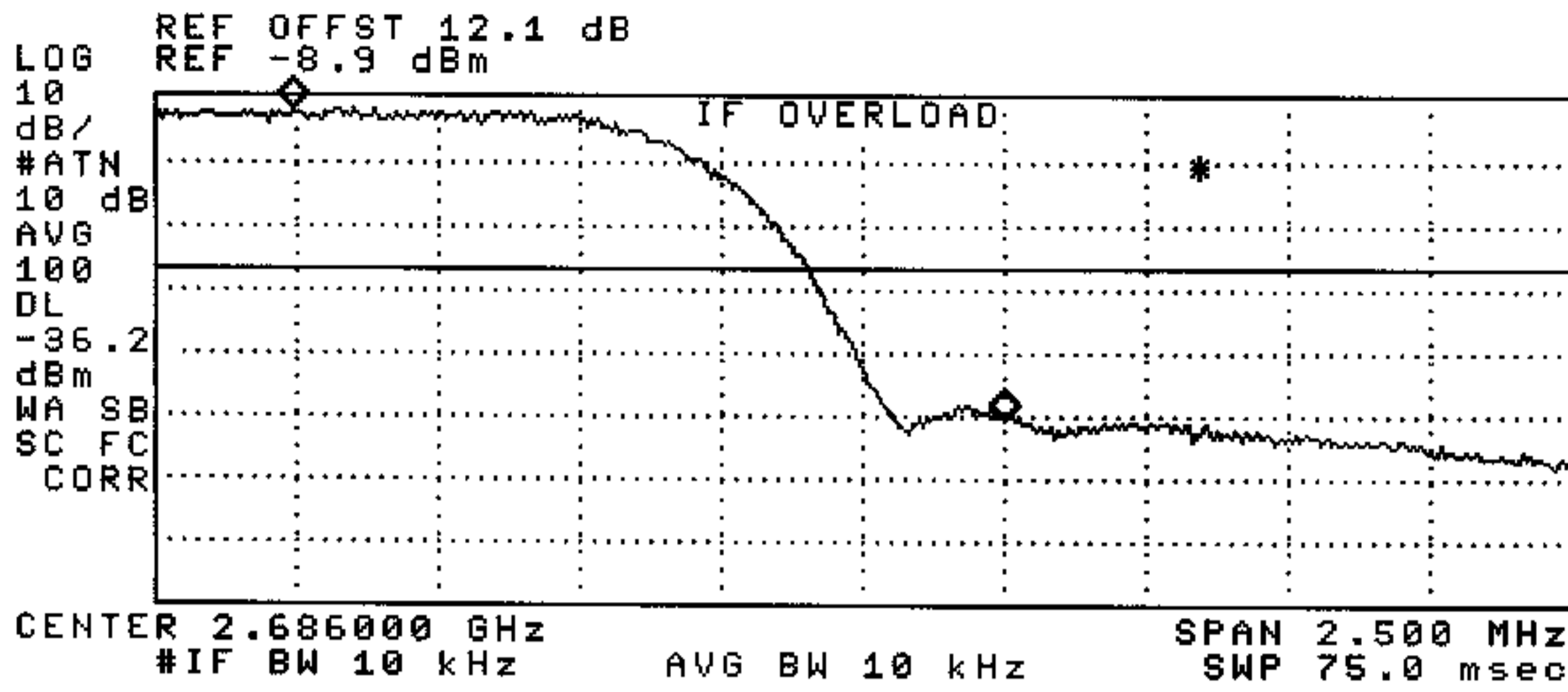
CENTER 2.64400 GHz  
#IF BW 10 kHz  
AVG BW 10 kHz  
SPAN 15.00 MHz  
SWP 450 msec

14:26:35 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2048K 2.6847GHz

DISPLAY LINE  
-36.2 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 1.256 MHz  
-48.74 dB

HOLD



DISP LINE  
ON OFF

Change Title

Limit Lines

ANALOG+  
ON OFF

More 1 of 2

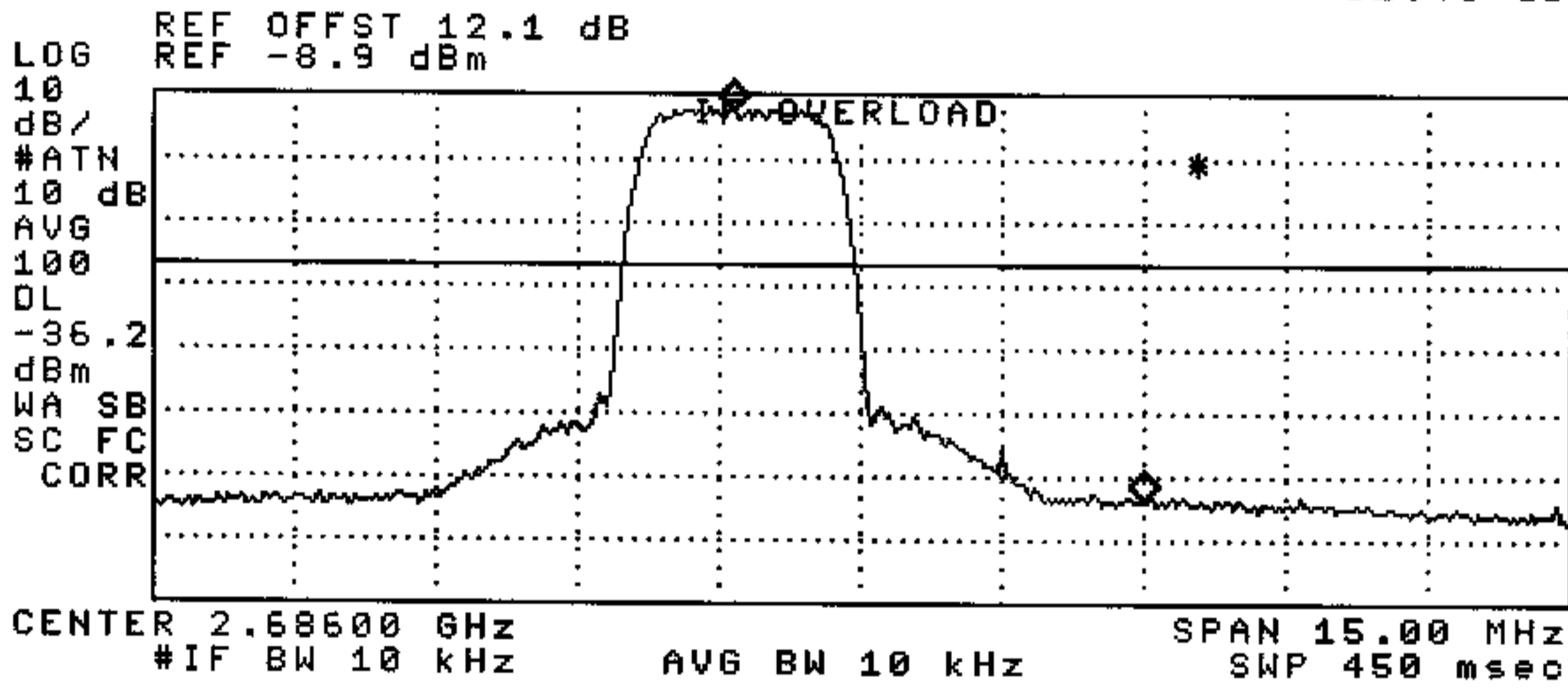
90

14:28:21 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2048K 2.6847GHz

MARKER Δ  
4.35 MHz  
-61.49 dB

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 4.35 MHz  
-61.49 dB

MARKER NORMAL



MARKER Δ

MARKER AMPTD

SELECT 1 2 3 4

MARKER 1  
ON OFF

More 1 of 3

91

14:00:45 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2560K 2.6456GHz

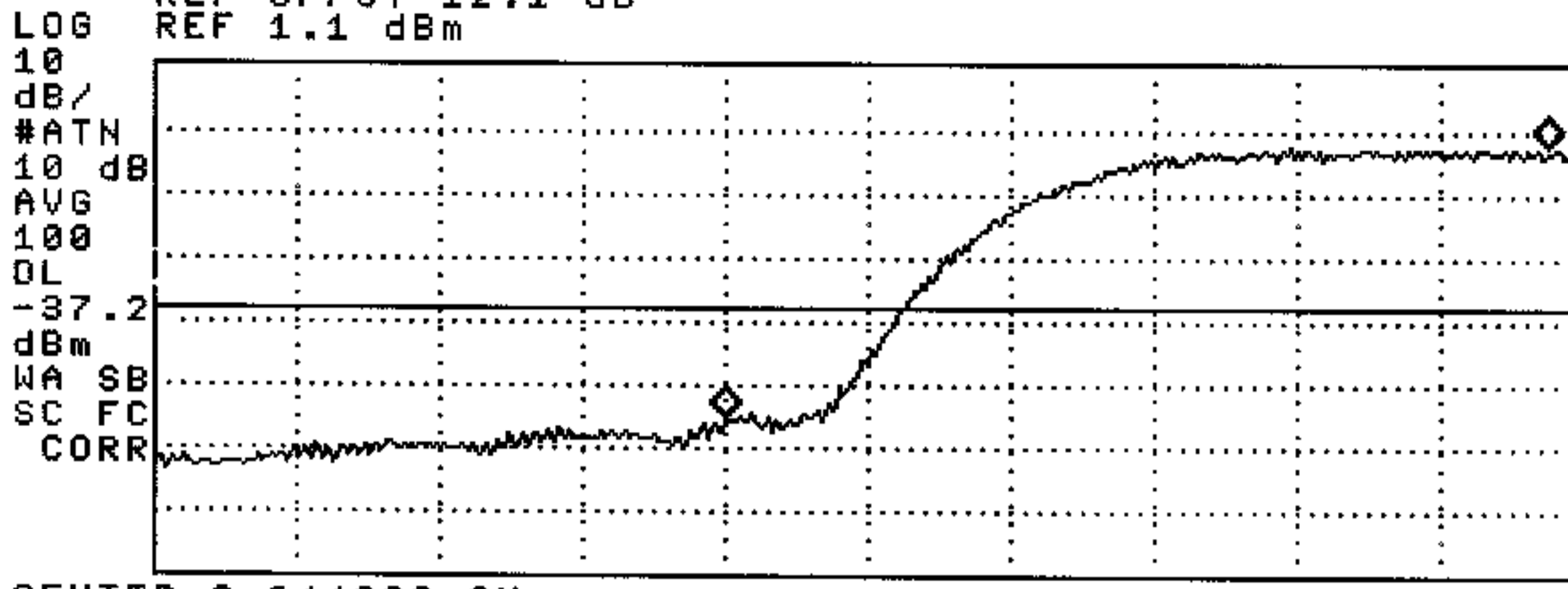
DISPLAY LINE  
-37.2 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -1.438 MHz  
-42.24 dB

HOLD

REF OFFST 12.1 dB  
REF 1.1 dBm

OSP LINE  
ON OFF



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

92

CENTER 2.644000 GHz SPAN 2.500 MHz  
#IF BW 10 kHz AVG BW 10 kHz SWP 75.0 msec

14:13:25 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2560K 2.6456GHz

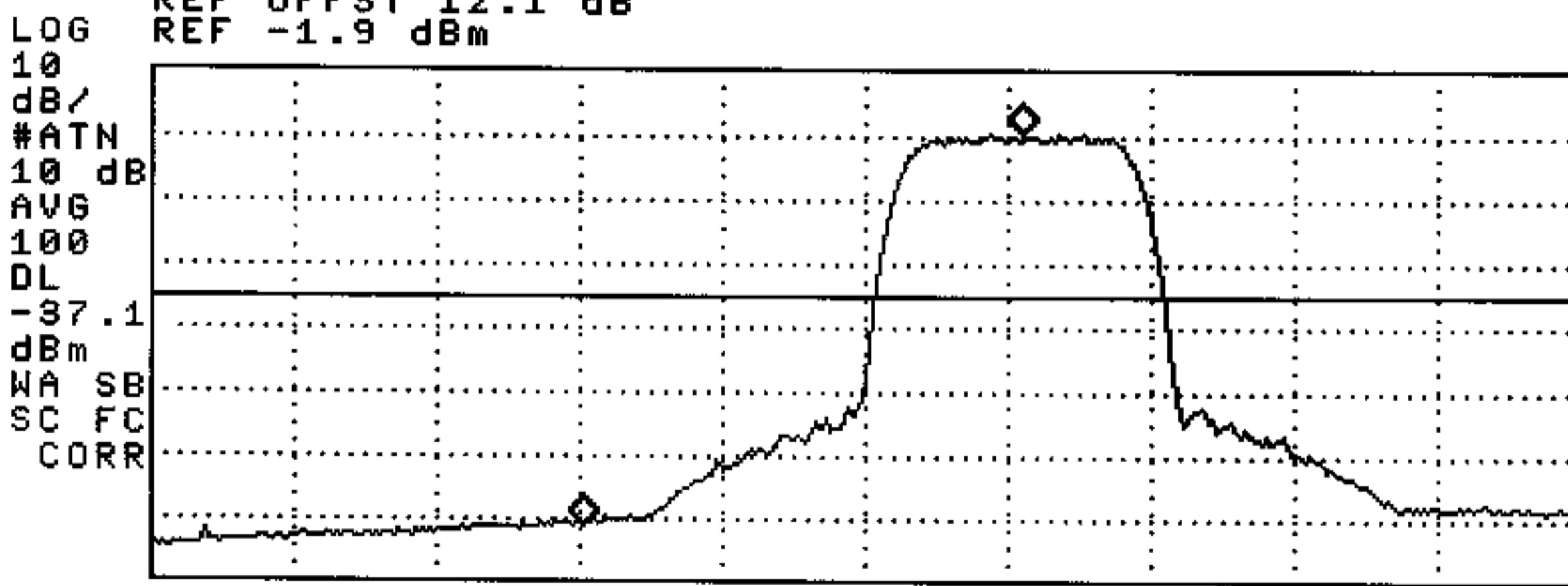
DISPLAY LINE  
-37.1 dBm

ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ -4.61 MHz  
-61.28 dB

HOLD

REF OFFST 12.1 dB  
REF -1.9 dBm

OSP LINE  
ON OFF



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

93

CENTER 2.64400 GHz SPAN 15.00 MHz  
#IF BW 10 kHz AVG BW 10 kHz SWP 450 msec

14:17:48 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2560K 2.6844GHz

DISPLAY LINE  
-37.1 dBm

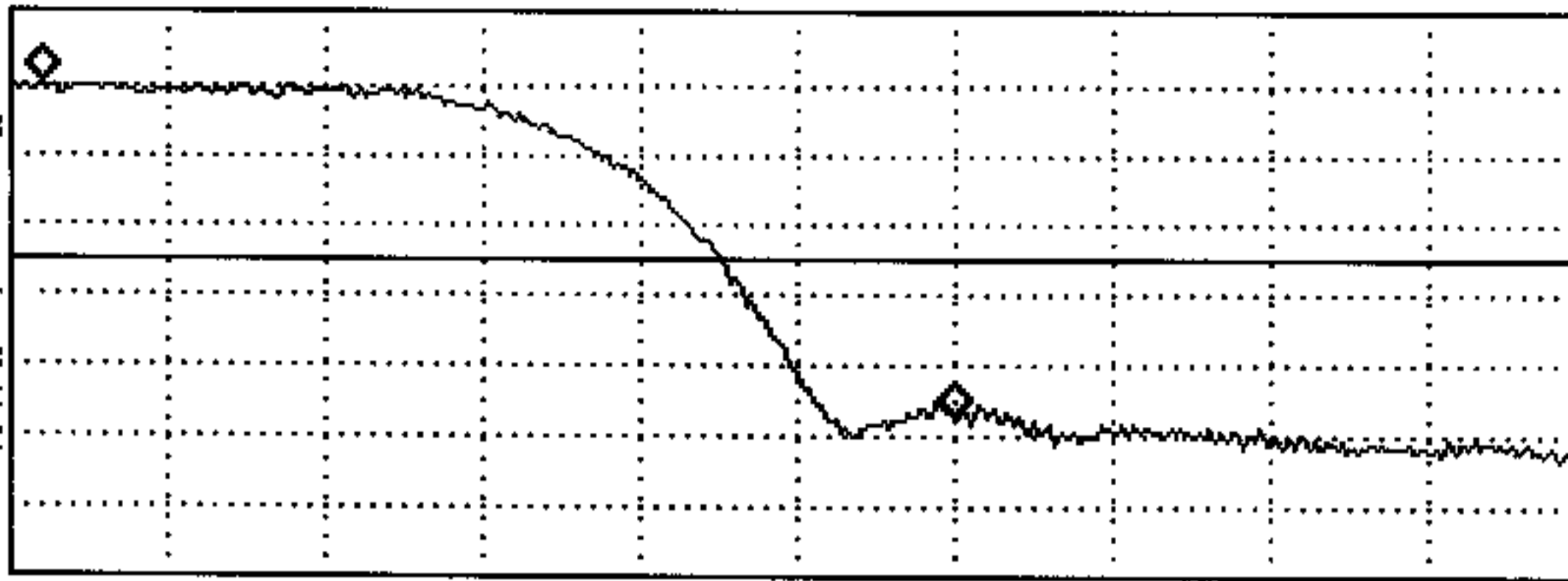
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 1.450 MHz  
-47.06 dB

HOLD

REF OFFST 12.1 dB  
REF -1.9 dBm

DSP LINE  
ON OFF

LOG  
10  
dB/  
#ATN  
10 dB  
AVG  
100  
DL  
-37.1  
dBm  
WA SB  
SC FC  
CORR



Change  
Title

Limit  
Lines

ANALOG+  
ON OFF

More  
1 of 2

CENTER 2.686000 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 2.500 MHz  
SWP 75.0 msec

94

?

14:20:34 NOV 15, 2001  
TSI OUPP1804-2 QPSK 2560K 2.6844GHz

MARKER Δ  
5.21 MHz  
-60.76 dB

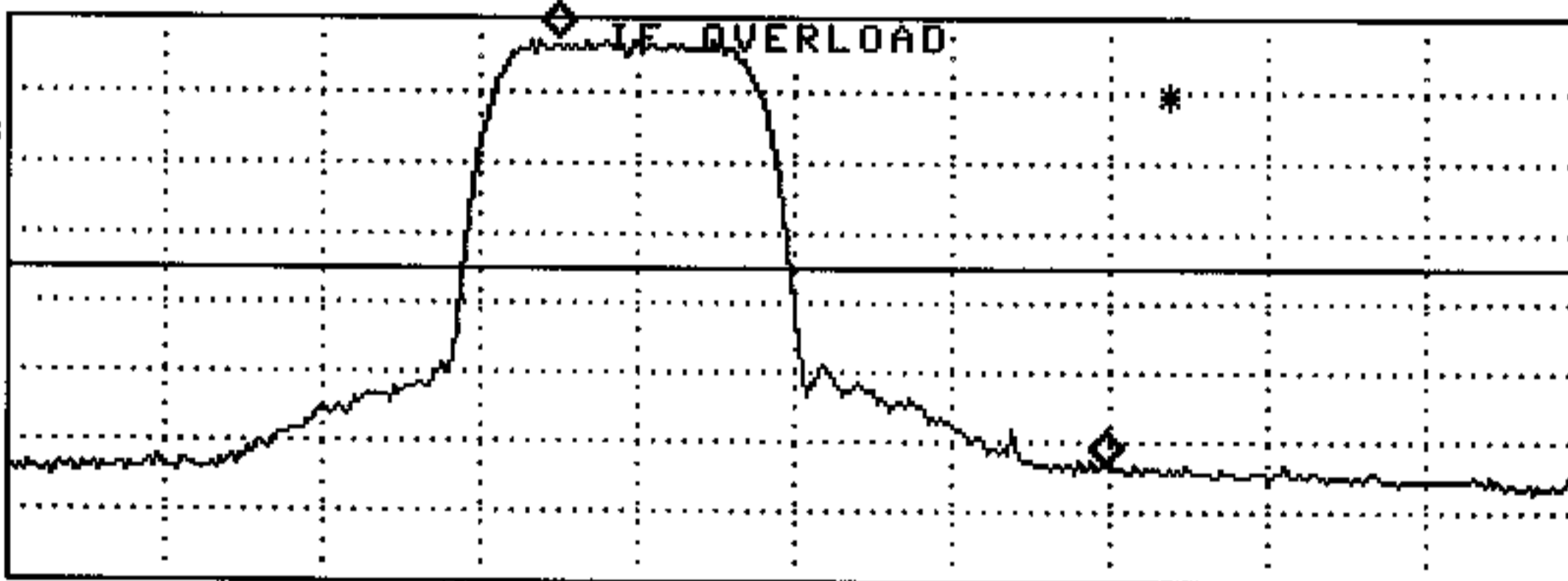
ACTV DET: SMPL  
MEAS DET: PEAK QP AVG  
MKRΔ 5.21 MHz  
-60.76 dB

MARKER  
NORMAL

REF OFFST 12.1 dB  
REF -8.9 dBm

MARKER  
Δ

LOG  
10  
dB/  
#ATN  
10 dB  
AVG  
100  
DL  
-44.1  
dBm  
WA SB  
SC FC  
CORR



MARKER  
AMPTD

SELECT  
1 2 3 4

MARKER 1  
ON OFF

More  
1 of 3

CENTER 2.68600 GHz  
#IF BW 10 kHz

AVG BW 10 kHz

SPAN 15.00 MHz  
SWP 450 msec

95