

FCC ID: BIO5290

TEST REPORT ADDENDUM

PEAK POWER OUTPUT MEASUREMENTS

Mode: Composite with MUX (404KF9E)

Test Location: EMCE Engineering •44366 S. Grimmer Blvd • Fremont, CA 94538 • 510-490-4307

Customer: **TFT, Inc**
 Specification: **TFT Analog Mask - Composite**
 Work Order #: **2417** Date: 5/25/2005
 Test Type: **Conducted Emissions** Time: 2:06:12 PM
 Equipment: **Analog STL Transmitter** Sequence#: 9
 Manufacturer: TFT, Inc. Tested By: Test Engineer
 Model: 5290
 S/N: N/A

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Analog STL Transmitter*	TFT, Inc.	5290	N/A

Support Devices:

Function	Manufacturer	Model #	S/N
Attenuator	MCE/Weinshel	40-30-33	N/A

Test Conditions / Notes:

945 MHz Composite with 50 kHz modulation, 50kHz deviation, 1.35 Vpp input level 152 kHz MUX modulation, 12 kHz deviation, 1.35 Vpp input level

Transducer Legend:

T1=30 dB Attenuator	T2=Xmit cable
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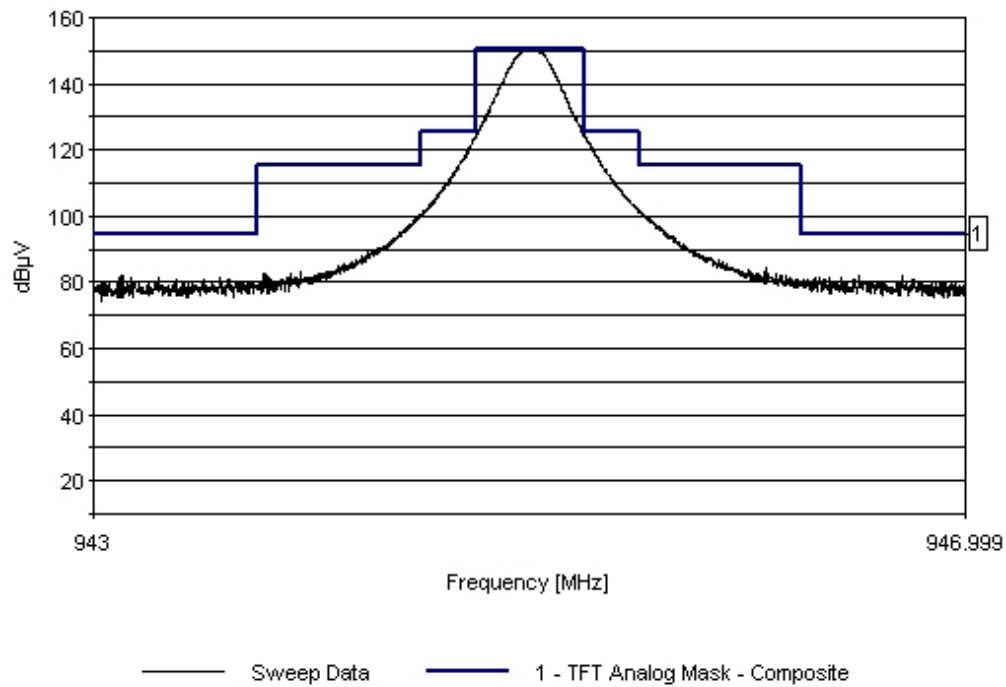
Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	944.977M	119.3	+30.4	+0.7			+0.0	150.4	150.4	+0.0	Anten
2	946.996M	51.6	+30.4	+0.7			+0.0	82.7	94.4	-11.7	Anten
3	946.508M	51.2	+30.4	+0.7			+0.0	82.3	94.4	-12.1	Anten
4	943.131M	50.9	+30.4	+0.7			+0.0	82.0	94.4	-12.4	Anten
5	946.705M	50.8	+30.4	+0.7			+0.0	81.9	94.4	-12.5	Anten
6	943.120M	50.3	+30.4	+0.7			+0.0	81.4	94.4	-13.0	Anten
7	946.375M	50.3	+30.4	+0.7			+0.0	81.4	94.4	-13.0	Anten
8	946.313M	50.2	+30.4	+0.7			+0.0	81.3	94.4	-13.1	Anten
9	946.425M	50.2	+30.4	+0.7			+0.0	81.3	94.4	-13.1	Anten
10	946.324M	50.1	+30.4	+0.7			+0.0	81.2	94.4	-13.2	Anten

FCC ID: BIO5290
TEST REPORT ADDENDUM

PEAK POWER OUTPUT MEASUREMENTS

EMCE Engineering Date: 5/25/2005 Time: 2:06:12 PM TFT, Inc WO#: 2417
TFT Analog Mask - Composite Test Distance: None Sequence#: 9



FCC ID: BIO5290

TEST REPORT ADDENDUM

PEAK POWER OUTPUT MEASUREMENTS

Mode: Composite (284KF9E)

Test Location: EMCE Engineering •44366 S. Grimmer Blvd • Fremont, CA 94538 • 510-490-4307

Customer: **TFT, Inc**

Specification: **TFT Analog Mask - Composite**

Work Order #: **2417**

Date: 5/25/2005

Test Type: **Conducted Emissions**

Time: 2:05:12 PM

Equipment: **Analog STL Transmitter**

Sequence#: 8

Manufacturer: TFT, Inc.

Tested By: Test Engineer

Model: 5290

S/N: N/A

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Analog STL Transmitter*	TFT, Inc.	5290	N/A

Support Devices:

Function	Manufacturer	Model #	S/N
Attenuator	MCE/Weinshel	40-30-33	N/A

Test Conditions / Notes:

50 kHz modulation, 50 kHz deviation, 1.35 Vpp input level

Transducer Legend:

T1=30 dB Attenuator	T2=Xmit cable
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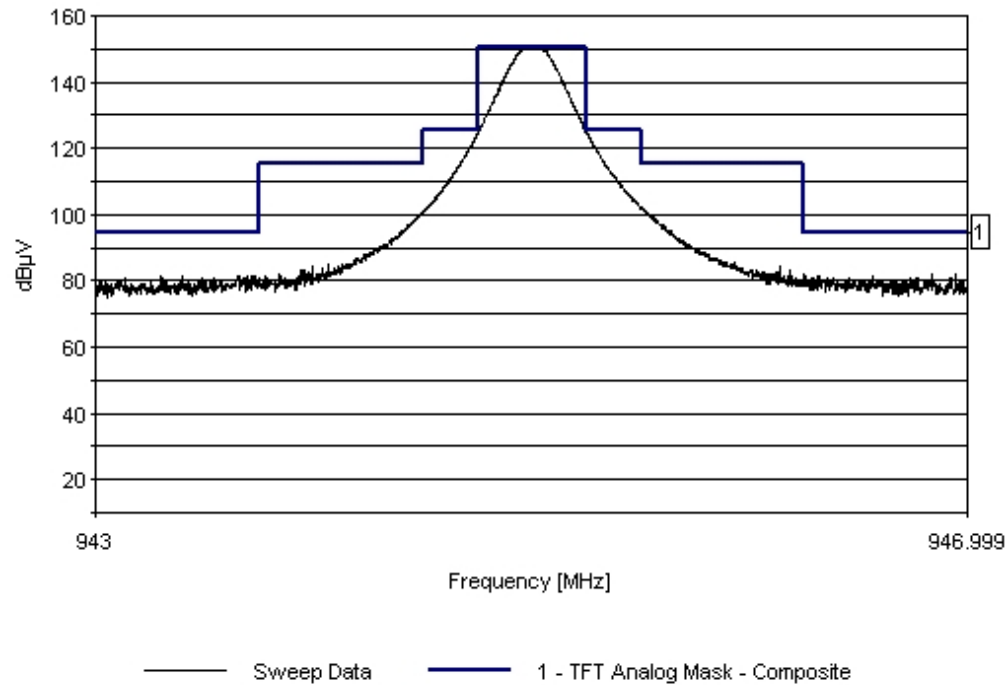
Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	944.978M	119.4	+30.4	+0.7			+0.0	150.5	150.5	+0.0	Anten
2	946.839M	51.2	+30.4	+0.7			+0.0	82.3	94.5	-12.2	Anten
3	946.946M	51.1	+30.4	+0.7			+0.0	82.2	94.5	-12.3	Anten
4	943.658M	50.6	+30.4	+0.7			+0.0	81.7	94.5	-12.8	Anten
5	946.313M	50.6	+30.4	+0.7			+0.0	81.7	94.5	-12.8	Anten
6	943.732M	50.5	+30.4	+0.7			+0.0	81.6	94.5	-12.9	Anten
7	943.394M	50.4	+30.4	+0.7			+0.0	81.5	94.5	-13.0	Anten
8	943.301M	50.2	+30.4	+0.7			+0.0	81.3	94.5	-13.2	Anten
9	946.922M	50.0	+30.4	+0.7			+0.0	81.1	94.5	-13.4	Anten
10	943.309M	49.9	+30.4	+0.7			+0.0	81.0	94.5	-13.5	Anten

FCC ID: BIO5290
TEST REPORT ADDENDUM

PEAK POWER OUTPUT MEASUREMENTS

EMCE Engineering Date: 5/25/2005 Time: 2:05:12 PM TFT, Inc WVO#: 2417
TFT Analog Mask - Composite Test Distance: None Sequence#: 8



FCC ID: BIO5290

TEST REPORT ADDENDUM

PEAK POWER OUTPUT MEASUREMENTS

Mode: Composite (80KF3E)

Test Location: EMCE Engineering •44366 S. Grimmer Blvd • Fremont, CA 94538 • 510-490-4307

Customer: **TFT, Inc**

Specification: **TFT Analog Mask - Composite**

Work Order #: **2417**

Date: 5/25/2005

Test Type: **Conducted Emissions**

Time: 2:03:31 PM

Equipment: **Analog STL Transmitter**

Sequence#: 7

Manufacturer: TFT, Inc.

Tested By: Test Engineer

Model: 5290

S/N: N/A

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Analog STL Transmitter*	TFT, Inc.	5290	N/A

Support Devices:

Function	Manufacturer	Model #	S/N
Attenuator	MCE/Weinshel	40-30-33	N/A

Test Conditions / Notes:

945 MHz Mono with 15 kHz Modulation, 24 kHz deviation, 1.35 Vpp input level

Transducer Legend:

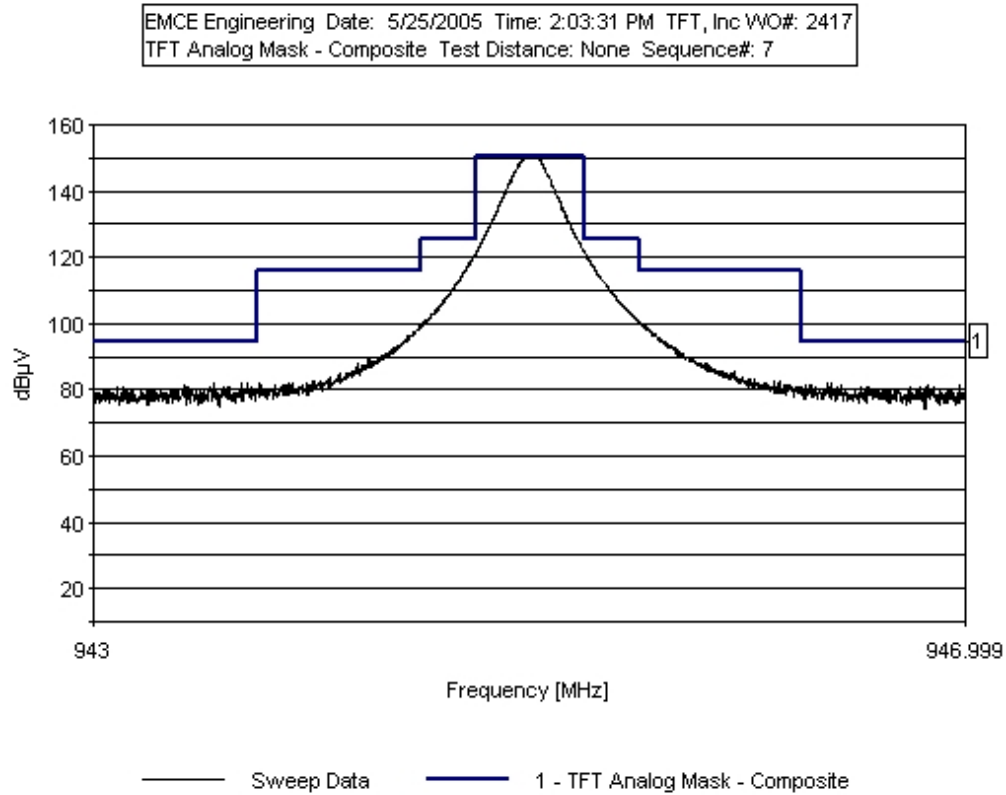
T1=30 dB Attenuator	T2=Xmit cable
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Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	944.993M	119.6	+30.4	+0.7			+0.0	150.7	150.7	+0.0	Anten
2	943.551M	51.1	+30.4	+0.7			+0.0	82.2	94.7	-12.5	Anten
3	943.703M	51.0	+30.4	+0.7			+0.0	82.1	94.7	-12.6	Anten
4	943.674M	50.7	+30.4	+0.7			+0.0	81.8	94.7	-12.9	Anten
5	946.975M	50.4	+30.4	+0.7			+0.0	81.5	94.7	-13.2	Anten
6	946.826M	50.2	+30.4	+0.7			+0.0	81.3	94.7	-13.4	Anten
7	943.413M	50.1	+30.4	+0.7			+0.0	81.2	94.7	-13.5	Anten
8	943.724M	49.9	+30.4	+0.7			+0.0	81.0	94.7	-13.7	Anten
9	946.748M	49.8	+30.4	+0.7			+0.0	80.9	94.7	-13.8	Anten
10	943.109M	49.7	+30.4	+0.7			+0.0	80.8	94.7	-13.9	Anten

FCC ID: BIO5290
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PEAK POWER OUTPUT MEASUREMENTS



SAMPLE POWER CALCULATION

$$W = 10^{(dBm-30/10)}$$

Mono: $P_{out} = 10(43.7-30/10) = 10(1.37) = 23.4W$

Composite: $P_{out} = 10(43.5-30/10) = 10(1.35) = 22.4W$

Composite w/MUX: $P_{out} = 10(43.4-30/10) = 10(1.34) = 21.9W$