Application

For

CERTIFICATION

Measurement Data Prepared On Behalf Of

METEOR COMMUNICATIONS CORPORATION

FCC ID: BIB54506001-01

Model: MCC545B

VHF Low Band - Meteor Burst Packet Data Radio

Under Part 90

BY

Spectrum Technology, Inc.
209 Dayton Street
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CERTIFICATION

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EXHIBIT 6A - TEST: RF POWER OUTPUT

FCC ID: BIB54506001-01

Grantee: Meteor Communications Corporation

Serial No.: none

Manufacture Rating:	100.0 Watt +50 dBm
Equipment Authorization Procedure:	Para. 2.1046
Duty Cycle:	Intermittent Packet Data
Frequency Measured:	45.00 MHz

FINAL RADIO FREQUENCY AMPLIFYING DEVICE

Transistor Type: Advanced Semi Corp.	VLB100-12F (Q1)
Measured Power Output	100.0 Watt or + 50 dBm

EXHIBIT 6E - TEST: OCCUPIED BANDWIDTH

FCC ID: BIB54506001-01

Grantee: Meteor Communications Corporation

Serial No.: none

Minimum Standard Specified: Para. 90.210(c)

Test Results: Equipment complies with standard

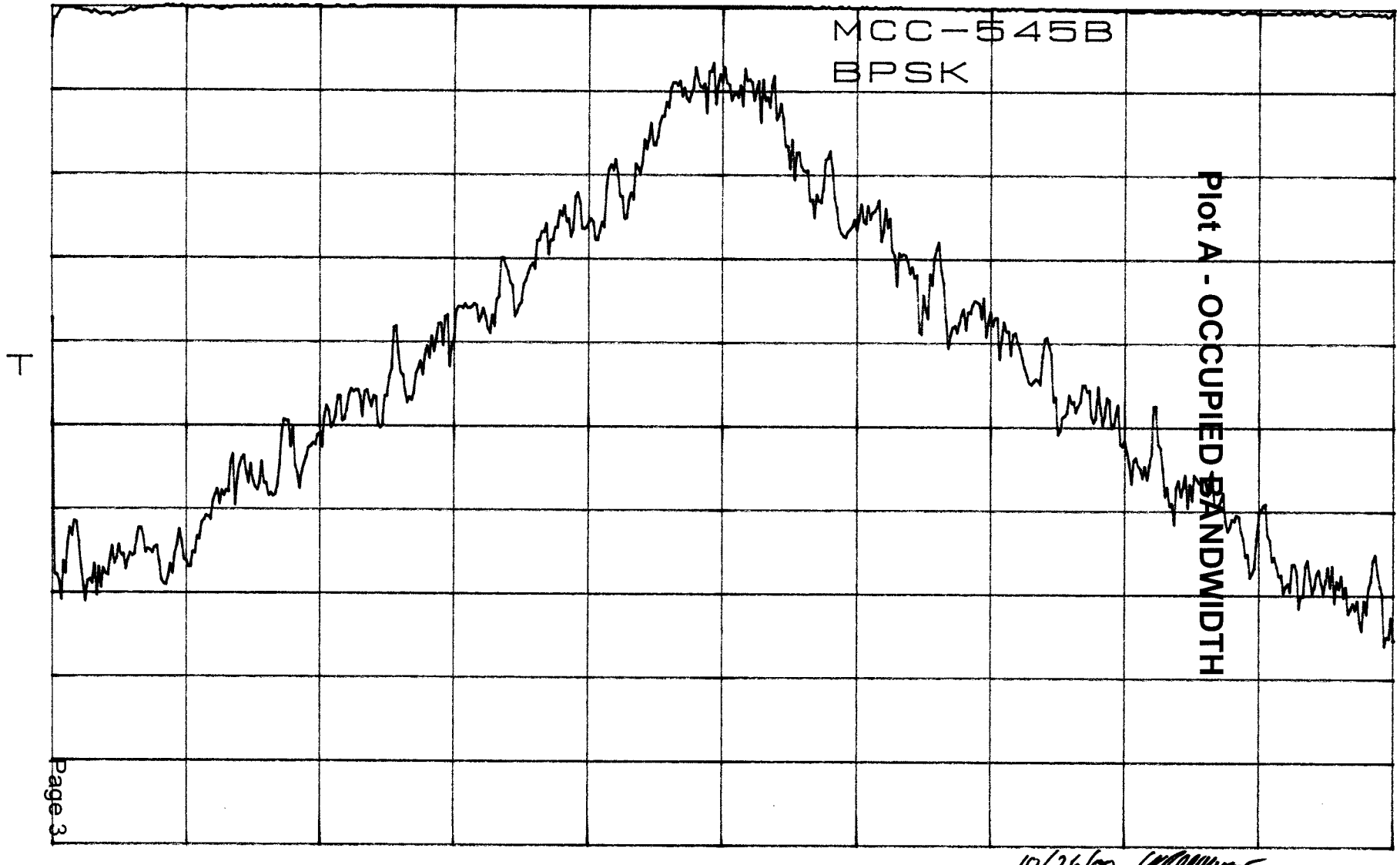
Equipment Authorization Procedure: Para. 2.1049

MEASUREMENT DATA

Spectrum Analyzer: Hewlett Packard 8562A

		Plot A	**Plot B**	
Settings:	Resolution Bandwidth:	100	300	Hz
	Video Filter:	100	300	Hz
	Scan Time:	50ms	3	sec.
	Scan Width:	50	100	kHz
	Center Frequency:	45.00	45.00	MHz

Please refer to the following two pages for the Plots A and B referenced above for the occupied bandwidth measured.


*ATTEN 30dB
RL 10.5dBm
10dB/
MCC-545B
BPSK
Plot A - OCCUPIED BANDWIDTH
T
Page 31
10/26/00
CENTER 45.00000MHz
SPAN 50.00kHz
*RBW 100kHz
VBW 100kHz
SWP 50ms

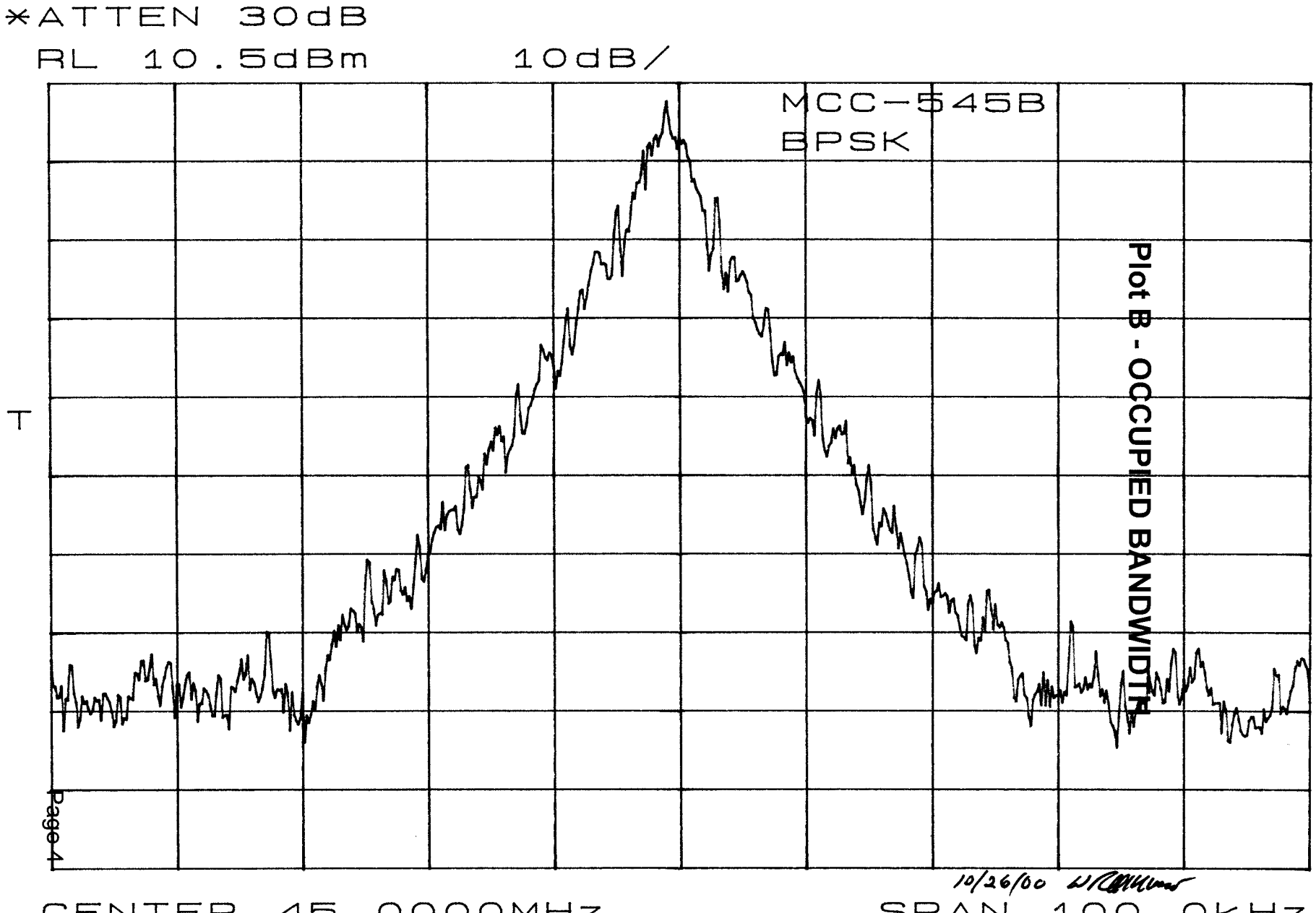

*ATTEN 30dB
RL 10.5dBm
10dB/
MCC-545B
BPSK
Plot B - OCCUPIED BANDWIDTH
T
Page 4
10/26/00
CENTER 45.0000MHz
SPAN 100.0kHz
*RBW 300Hz
*VBW 300Hz
SWP 3.0sec

EXHIBIT 6F - TEST: CONDUCTED SPURIOUS EMISSIONS

FCC ID: BIB54506001-01

Grantee: Meteor Communications Corporation

Serial No.: none

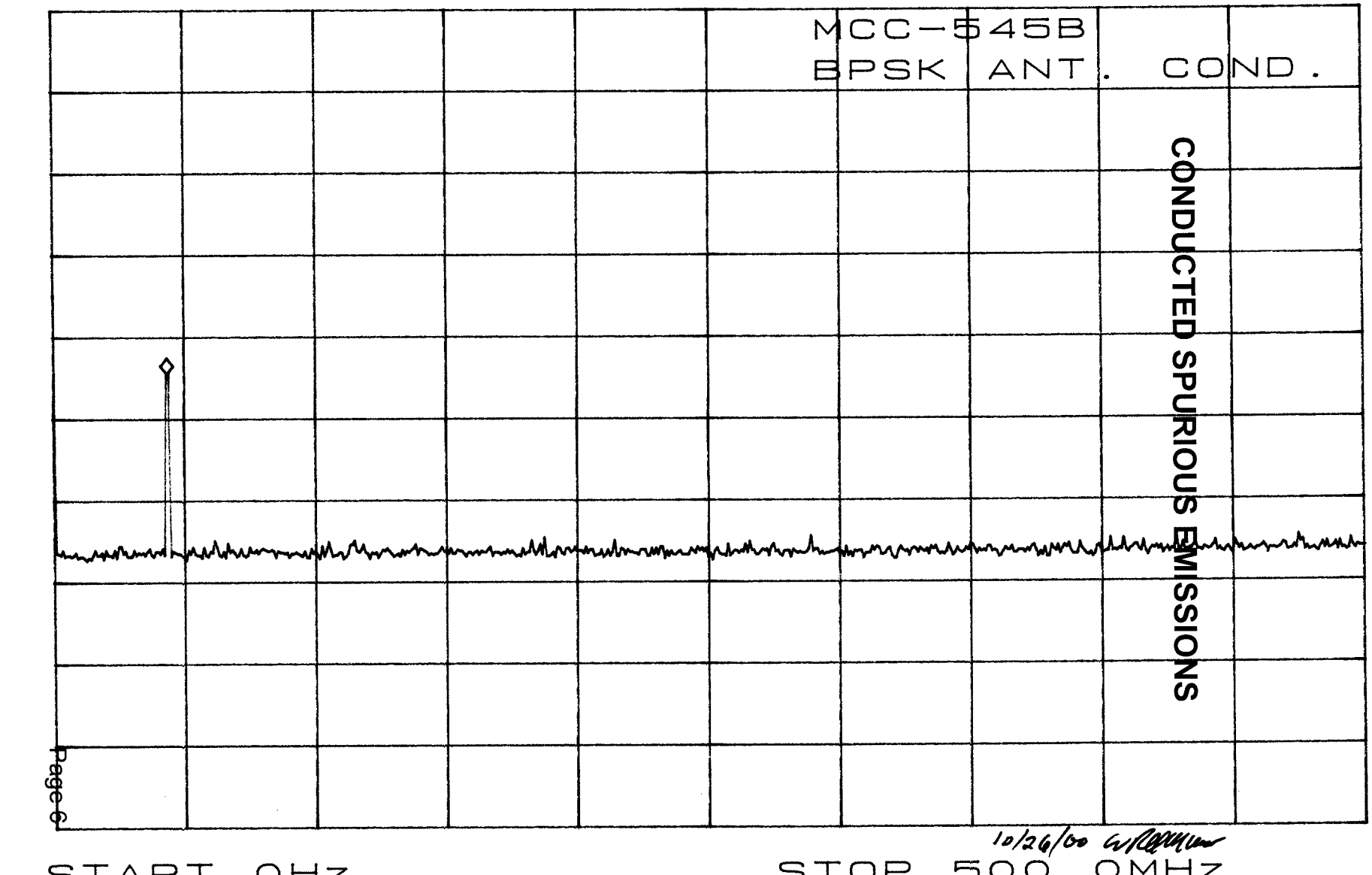
Minimum Standard Specified:	Para. 90.209
Test Results:	Equipment complies with standard
Equipment Authorization Procedure:	Para. 2.1051
Frequency Range Observed:	0 to 500 MHz
Operating Frequency:	45.00 MHz
Power Output:	100.0 Watt high power (peak)
Spurious Limit = 43 dB + 10Log_{10} PO =	43 + (20) = 63 dBc

Method of Measurement

The transmitter output was fed through a tuneable bandpass filter, a K&L Microwave Model:X4BT-75/150-2B, tuned individually to permit the second then the third harmonic and so on, to pass, while the Fo was rejected. The bandpass filter was used to allow an accurate measurement and avoid overloading the mixer of the spectrum analyzer due to the high power. The spectrum analyzer plot on the following page is a max-hold peak record.

The modulation generated by the EUT and used during test was a pseudo random phase shift key (PSK) data modulation. The data stream is a 2kHz square wave or 4 kb/sec. data rate. This is the maximum amplitude and symbol rate.
below the spurious limit.

Please refer to the plot on the following page with the measurement results.


*ATTEN 30dB
MKR -34.00dBm
RL 10.5dBm
10dB/
43.3MHz
MCC-545B
BPSK ANT. COND.
CONDUCTED SPURIOUS EMISSIONS
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10/26/00
START 0Hz
STOP 500.0MHz
*RBW 100kHz
VBW 100kHz
SWP 200ms

EXHIBIT 6G - TEST: RADIATED SPURIOUS EMISSIONS

FCC ID: BIB54506001-01

Grantee: Meteor Communications Corporation

Serial No.: none

Minimum Standard Specified:	Para. 90.210
Test Results:	Equipment complies with standard
Equipment Authorization Procedure:	Para. 2.103
Test Equipment Set Up:	See Block Diagram
Frequency Range Observed:	0 to 500 MHz
Operating Frequency:	45.00 MHz
Power Output:	100.0 Watt (peak)
Spurious Limit = 43 dB + 10Log_{10} PO =	43 + (20) = 63 dBc high power

The modulation generated by the EUT and used during test was a pseudo random phase shift key (PSK) data modulation. The data stream is a 2kHz square wave or 4 kb/sec. data rate. This is the maximum amplitude and symbol rate.

FORMULA	FREQUENCY IN MHz	Level (dB below carrier)
Fo	45.00	- 0 -
3Fo	135.00	- 88.56
5Fo	225.00	- 78.2

Note: All other radiated emissions measured were more than 20 dB below the spurious limits noted above.

EXHIBIT 6H - FREQUENCY STABILITY

FCC ID: BIB54506001-01

Grantee: Meteor Communications Corporation

Minimum Standard Specified:	Para. 90.213 20 ppm = +/- 900 Hz	-30 to +50 C 25-50 MHz
Equipment Authorization Procedure:	Para. 2.995	-30 to +50 C
Test Frequency:	45.00 MHz	
Test Results:	Equipment complies with standard	

The measurement data reported on the following page, displays the frequency observed when the transmitter was first keyed, immediately following power up (a period of 45-60 seconds). This value was recorded and is reported. Measurements at +50, 0 and -30 degrees C were made at the nominal voltage and after varying the voltage + and - 15 %. Within the initial 60 seconds, the transmitter was measured well within the frequency tolerance of 20 ppm in all cases.

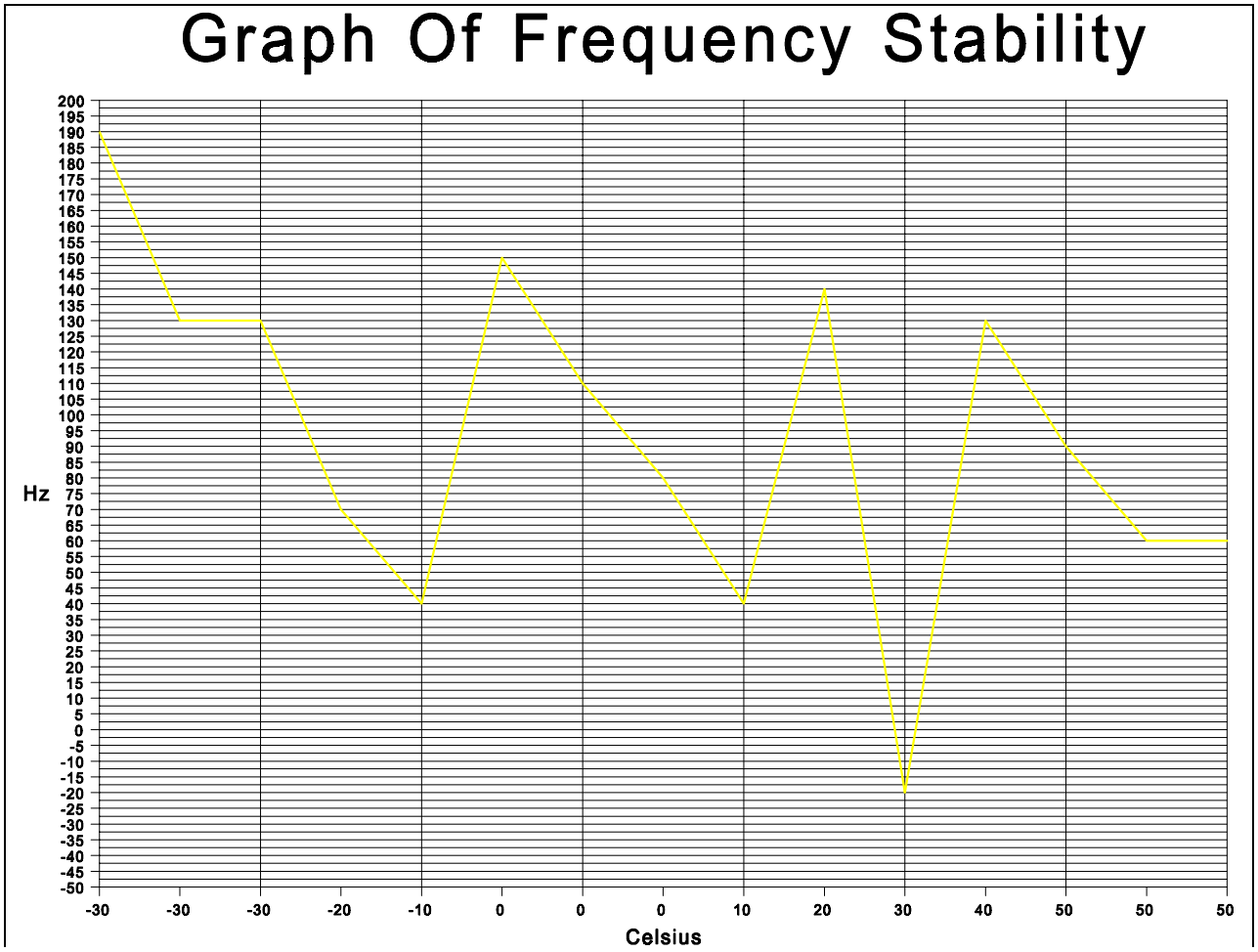
Two temperature probes connected to a Fluke 52, were used during the measurements. The first probe was mechanically held in place in contact with the largest internal mass of the transmitter adjacent to the TCXO. The other probe was placed within the chamber at a location with good air circulation to accurately measure the internal chamber temperature for comparison with the internal transmitter temperature to ensure temperature stability at all measurement points prior to measurements.

Voltages used for measurements at -30, 0, & +50 degrees Celsius:

+15 %	13.8 VDC
Nominal	12.0 VDC
-15%	10.2 VDC

EXHIBIT 6H - FREQUENCY STABILITY

FCC ID: BIB54506001-01	Grantee: Meteor Communications Corporation	
Minimum Standard Specified:	Para. 90.213 20 ppm = +/- 900 Hz	-30 to +50 C 25-50 MHz
Equipment Authorization Procedure:	Para. 2.1055	
Test Frequency:	45.00 MHz	Band 36 - 50 MHz



The variation in frequency with voltage are shown on the plot above for +50, 0 and -30 C. Three readings are shown at these temperatures. The left hand reading is -15%, 10.2 VDC, the right hand reading is +15%, 13.8 VDC. The center reading at +50, 0 and 30 degrees C and all of the other reported readings are at the nominal voltage of 12 VDC.