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## **RF Power Output Data**

The RF power output was measured with the indicated voltage and current applied into the final RF amplifying device(s).

The RF output, DC current and RF Input Power are all time-averaged values which reflect a 9.2 % (8.28 ms Tx bursts / 90 ms frame) transmit duty cycle characteristic of transceiver operation.

• RF Output Power: 0.607 Watts

• DC Voltage: 7.5 Volts

• DC Current: 0.404 Amps

• RF Input: 0.092 mW

### BANDWIDTH MEASUREMENT DATA FOR TRANSMITTER TYPES Q7W

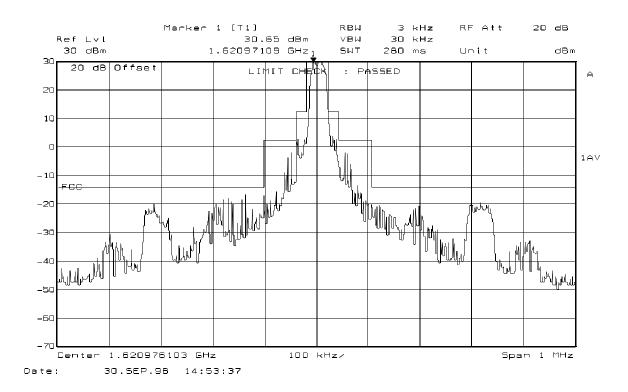
### DEVIATION OF THE CARRIER WITH QPSK MODULATION

HORIZONTAL SCALE = 1 MHz/DIVISION VERTICAL SCALE = 10 dB/DIVISION

RESOLUTION BANDWIDTH = 3 kHz POWER LEVEL = .6 W (Mean Output Power)

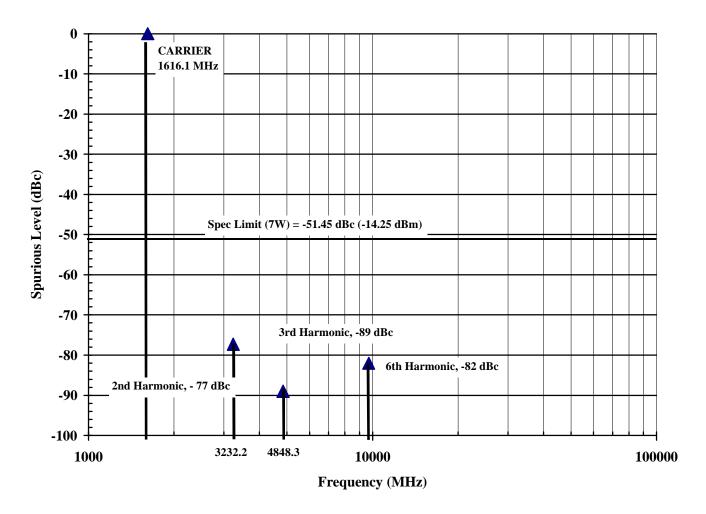
#### **MEASURED DATA:**

1. Modulate the transmitter with QPSK modulation, using pseudo random data. Obtain image on spectrum analyzer.



### **COMMENTS:**

A 3 kHz resolution bandwidth was used instead of the 4 kHz specified in 47 CFR 25.202. A correction factor was included in the limit for the bandwidth difference.



### TRANSMITTER CONDUCTED EMISSIONS, CHANNEL #3

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: Channels #3, #120, and #238

\*All other Emissions greater than 20 dB below the spec were not reported

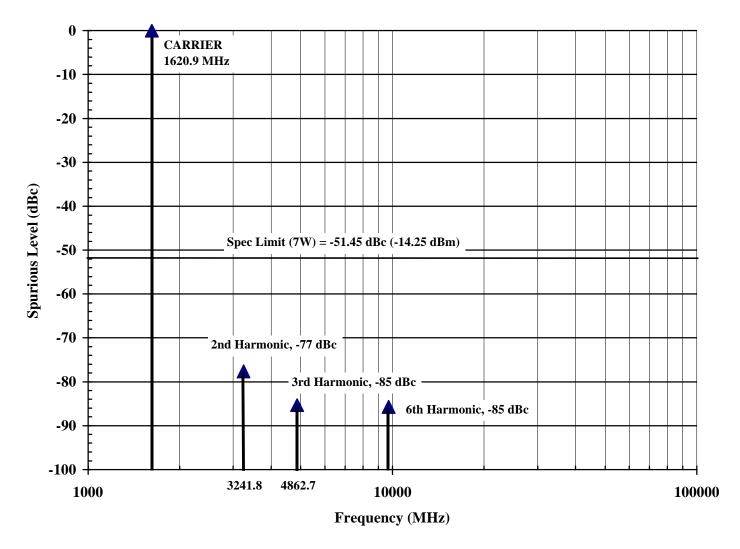
\*No observable signals in GPS/GNSS band (1559-1605 MHz @ -70dBW/MHz & -80dBW/700Hz)

\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

SSTG EMC Group

9/30/98

**EXHIBIT 9C-1** 



### TRANSMITTER CONDUCTED EMISSIONS, CHANNEL #120

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: Channels #3, #120, and #238

\*Emissions greater than 20 dB below the spec were not reported

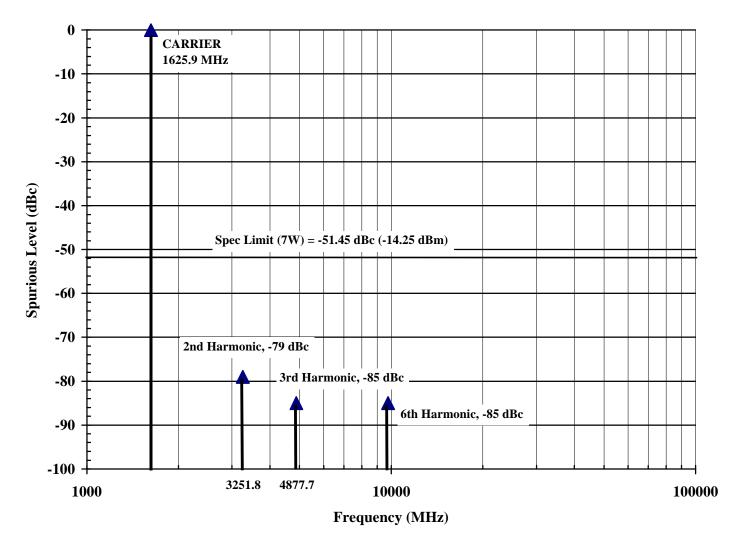
\*No observable signals in GPS/GNSS band (1559-1605 MHz @ -70dBW/MHz & -80dBW/700Hz)

\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

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EXHIBIT 9C-2



### TRANSMITTER CONDUCTED EMISSIONS, CHANNEL #238

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: Channels #3, #120, and #238

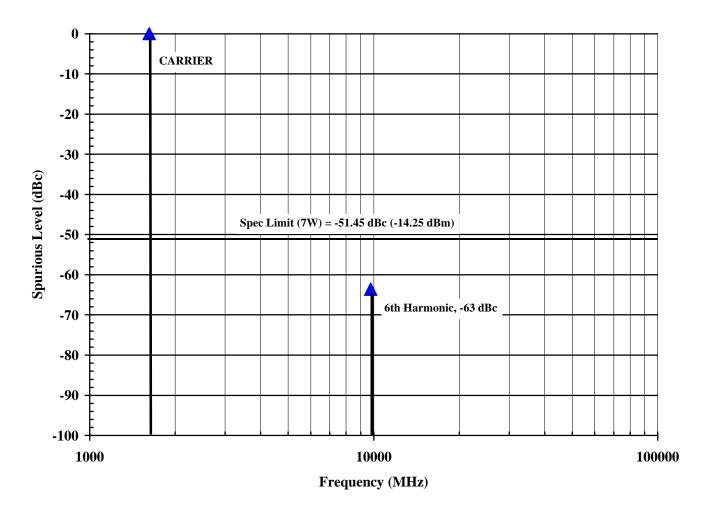
\*Emissions greater than 20 dB below the spec were not reported

\*No observable signals in GPS/GNSS band (1559-1605 MHz @ -70dBW/MHz & -80dBW/700Hz)

\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

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EXHIBIT 9C-3



## TRANSMITTER RADIATED EMISSIONS, MAX LEVELS OF CHANNELS #3, 120, 238

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

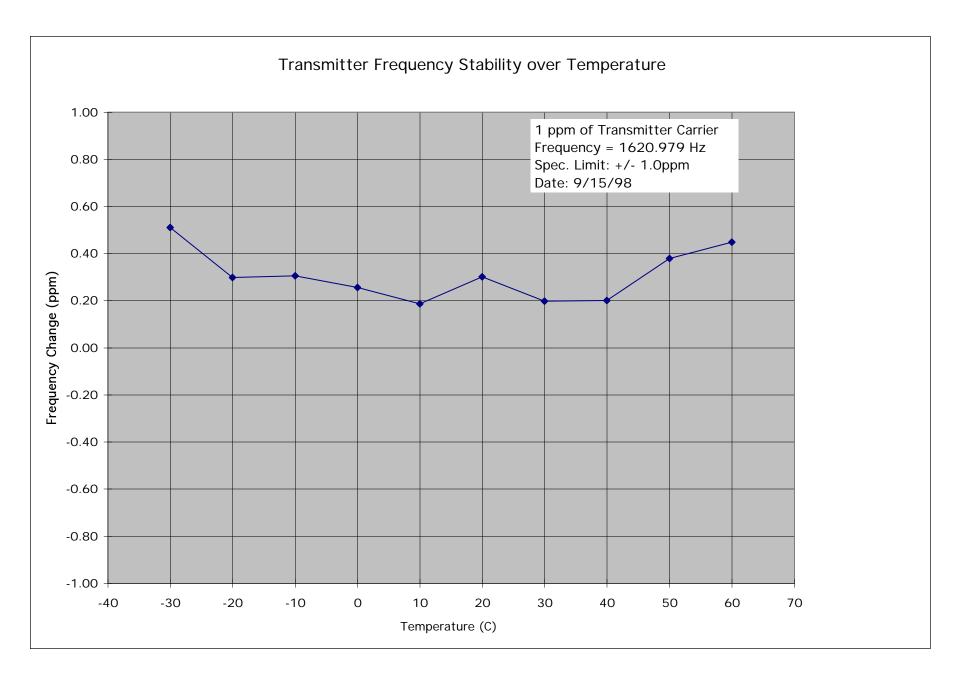
Channels Tested: Channels #3, #120, and #238

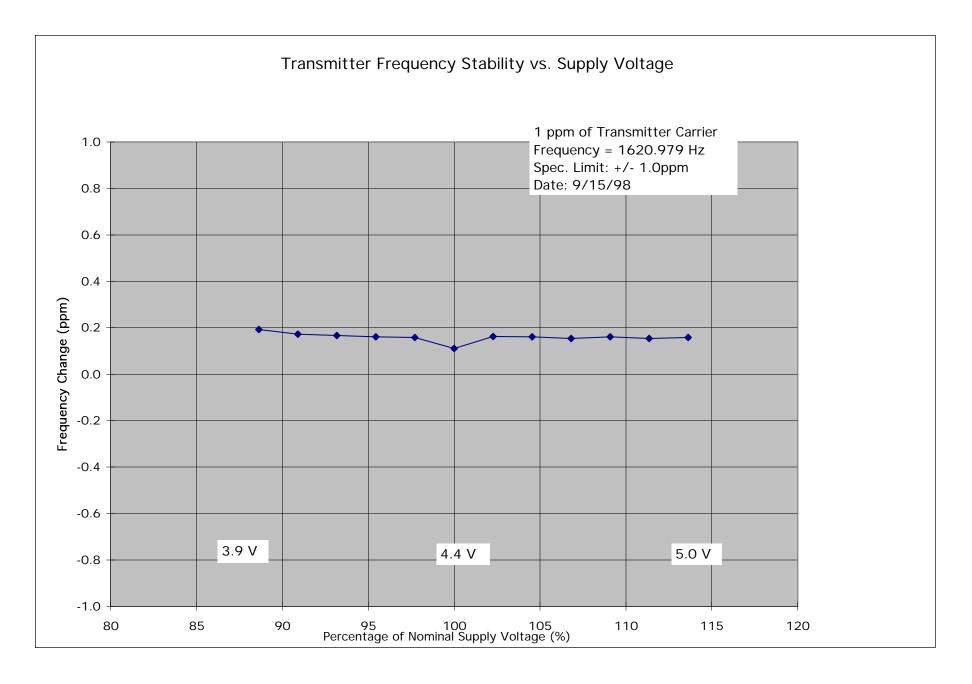
\*Emissions greater than 20 dB below the spec were not reported

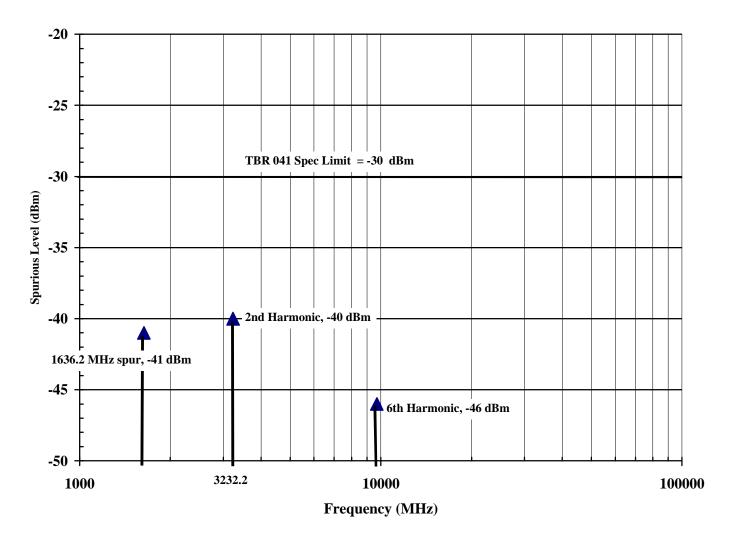
\*Spectrum search performed from 30 MHz to 16.3 GHz (10X Carrier Frequency)

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9/30/98 **EXHIBIT 9D** 







TBR 041 OUT OF BAND CONDUCTED EMISSIONS, CHANNEL #3

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: #3 and #238

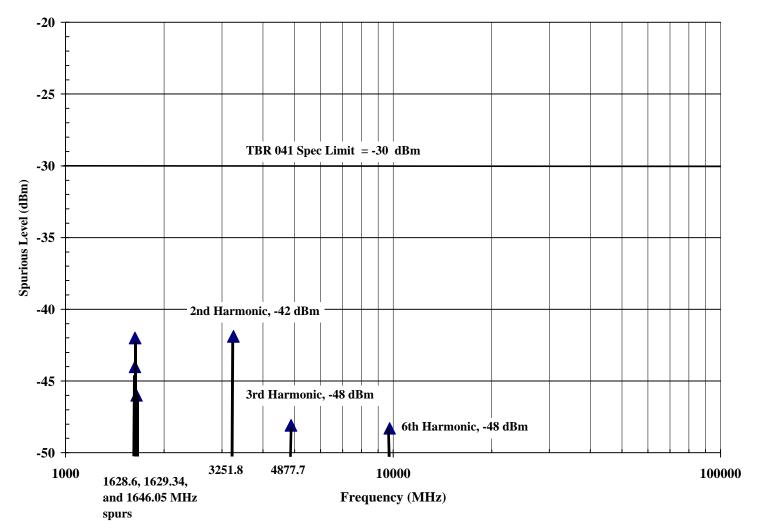
\*No observable signals in GPS/GNSS Band (1559-1605 MHz @ -70dBW/MHz), MSS> 6 dB below spec

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9/30/98 EXHIBIT 9G-1

<sup>\*</sup>Emissions greater than 20 dB below the spec were not reported

<sup>\*</sup>Spectrum search performed from 100 kHz to 12.75 GHz



TBR 041 OUT OF BAND CONDUCTED EMISSIONS, CHANNEL #238

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: #3 and #238

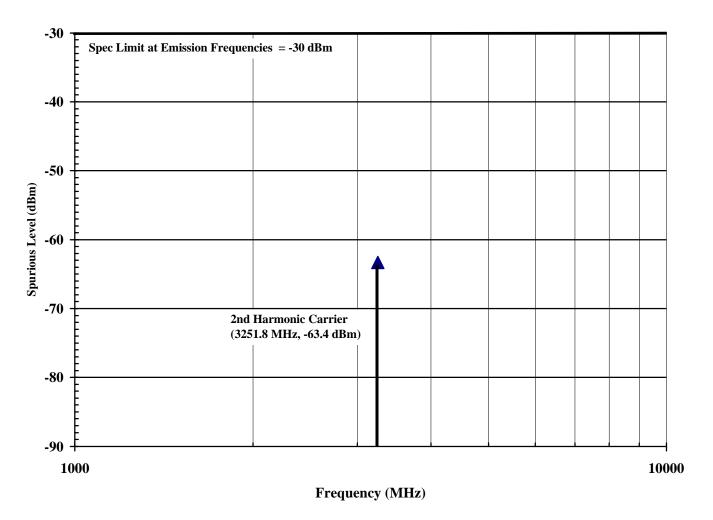
\*No observable signals in GPS/GNSS Band (1559-1605 MHz @ -70dBW/MHz), MSS> 6 dB below spec

\*Emissions greater than 20 dB below the spec were not reported

\*Spectrum search performed from 100 kHz to 12.75 GHz

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### RADIATED EMISSIONS, CABINET, ANTENNA PORT TERMINATED

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

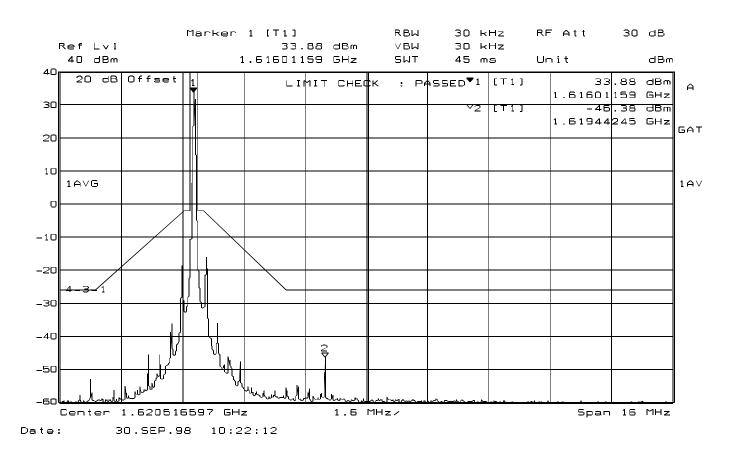
Channels Tested: #3 and #238 (Graph represents worst case emissions)
\*All other emissions greater than 20 dB below the spec were not reported

\*Spectrum search performed from 30 MHz to 4 GHz

SSTG EMC Group 9/30/98 EXHIBIT 9H

### MOTOROLA SSTG DATA SHEET

Mode: Model#:	Conducted Emissions - Carrier Off  Iridium Subscriber Unit Test Date: 9/24/98  Ring Alert Monitor Test Technician: R. Johnston  Mobile (RoadRunner) Measurement Distance (m) Conducted  T4GW5 Equipment Class N/A	Comments:
Frequency (MHz)	Emission Level (dBm)	
0.1 to 12750	No detectable signals within 20 dB of the TBR 041 specification limits.	



# TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #3

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

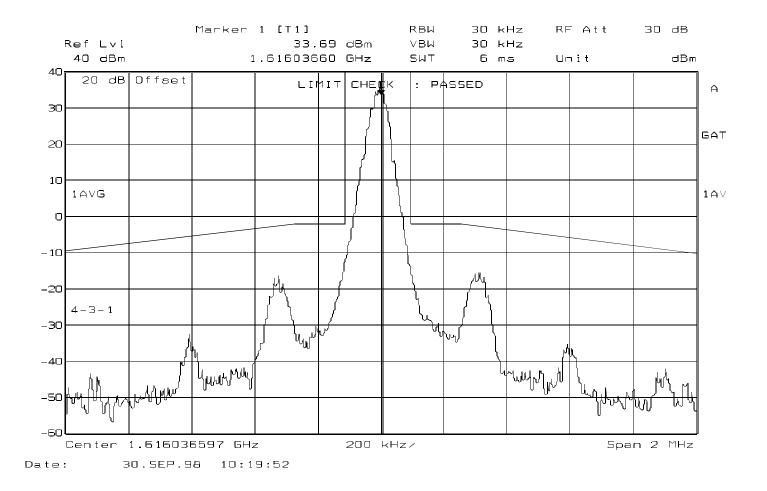
Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: #3 and #238

\*Spectrum search performed from 1610 MHz to 1628.5 MHz

**SSTG EMC Group** 

9/30/98 EXHIBIT 9J-1



### TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #3

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: #3 and #238

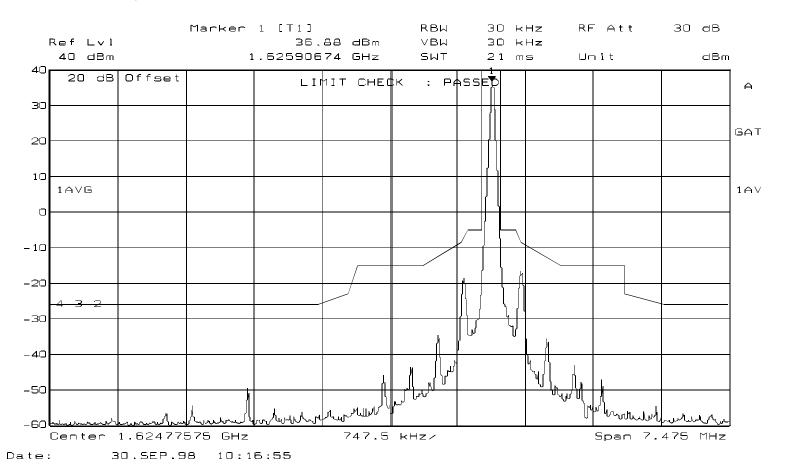
\*Spectrum search performed from 1610 MHz to 1628.5 MHz

SSTG EMC Group

9/30/98 EXHIBIT 9J-2

#### APPLICANT: MOTOROLA, INC.

#### FCC ID:IHDT6NE1



### TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #238

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: #3 and #238

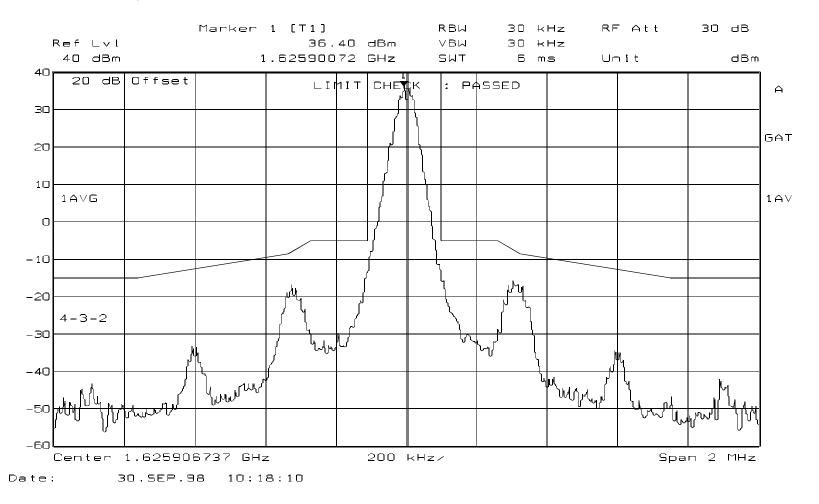
\*Spectrum search performed from 1610 MHz to 1628.5 MHz

SSTG EMC Group

9/30/98 EXHIBIT 9J-3

#### APPLICANT: MOTOROLA, INC.

#### FCC ID: IHDT6NE1



# TBR 041 IN BAND CONDUCTED EMISSIONS, CHANNEL #238

Carrier Power: 7 W max (+38.45 dBm), .645 W average (+28 dBm)

Carrier Frequency: 1616 to 1626.5 MHz (240 Channels)

Channels Tested: #3 and #238

\*Spectrum search performed from 1610 MHz to 1628.5 MHz

SSTG EMC Group 9/30/98 EXHIBIT 9J-4

## MOTOROLA SSTG DATA SHEET

TBR 041	EIRP Density l	Measurement			Comments:
Equip. Iridium Subscriber Unit  Mode: Traffic Channel  Model#: Mobile (RoadRunner)  Serial #: T4GW5			Test Date: Test Technician: Measurement Distance (m) Equipment Class	9/30/98 R. Johnston Conducted N/A	
Frequency (MHz)	EIRP Density (dBm/4kHz)	EIRP Density mean limit (dBm/4kHz)			
1616.028	+22.12	+27			Channel #01
1616.100	+22.13	+27			Channel # 03
1616.188	+22.12	+27			Channel #05
1616.271	+22.12	п			Channel #07
1620.979	+22.09	п			Channel #120
1621.062	+22.10	п			Channel #122
1621.145	+22.11	n			Channel #124
1621.229	+22.09	n			Channel #126
1625.645	+22.12	п			Channel #232
1625.729	+22.10	п			Channel #234
1625.812	+22.10	+27			Channel # 236
1625.895	+22.09	+27			Channel #238