

## 6.6. FREQUENCY STABILITY @ FCC 2.1055 & 90.213

### 6.6.1. Limits @ FCC 90.213

Please refer to FCC CFR 47, Part 90, Subpart I, Para. 90.213 for specification details.

| FREQUENCY<br>RANGE<br>(MHz) | FIXED & BASE<br>STATIONS<br>(ppm) | MOBILE<br>STATIONS<br>(ppm) |
|-----------------------------|-----------------------------------|-----------------------------|
| 896-901                     | 0.1                               | $\leq 2$ W<br>1.5           |

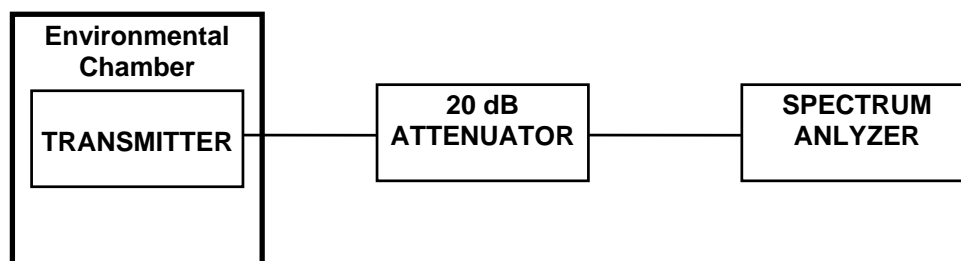
### 6.6.2. Method of Measurements

Refer to Exhibit 8, § 8.3 of this report for measurement details

### 6.6.3. Test Equipment List

| Test Instruments                  | Manufacturer    | Model No. | Serial No. | Frequency Range      |
|-----------------------------------|-----------------|-----------|------------|----------------------|
| EMI Receiver/<br>EMI Receiver     | Hewlett Packard | HP 8593EM | 3412A00103 | 9 kHz – 26.5 GHz     |
| Attenuator(s)                     | Bird            | ..        | ...        | DC – 22 GHz          |
| Temperature & Humidity<br>Chamber | Tenney          | T5        | 9723B      | -40° to +60° C range |

### 6.6.4. Test Arrangement



## 6.6.5. Test Data

|   |   |
|---|---|
| <b>Product Name:</b>                      | <b>Boomer-III Mobitex Wireless OEM Modem Module</b> |
| <b>Model No.:</b>                         | <b>BM3-900M</b>                                     |
| <b>Center Frequency:</b>                  | 896 MHz   |
| <b>Full Power Level:</b>                  | 33 dBm  |
| <b>Frequency Tolerance Limit:</b>         | $\pm 1.5$ ppm or $\pm 1344$ Hz at 896 MHz           |
| <b>Max. Frequency Tolerance Measured:</b> | -0.73 ppm or -662 Hz                                |
| <b>Input Voltage Rating:</b>              | 3.8 VDC   |

| CENTER FREQUENCY & RF POWER OUTPUT VARIATION |                          |                                 |                                  |
|--|--------------------------|---------------------------------|----------------------------------|
| Ambient Temperature (°C)                     | Supply Voltage (Nominal) | Supply Voltage (85% of Nominal) | Supply Voltage (115% of Nominal) |
|  | 3.8 Volts                | 3.2 Volts                       | 4.4 Volts                        |
|  | Hz                       | Hz                              | Hz                               |
| -30  | 515                      | N/A                             | N/A                              |
| -25  | 233                      | N/A                             | N/A                              |
| -20  | -304                     | N/A                             | N/A                              |
| -15  | -614                     | N/A                             | N/A                              |
| -10  | -662                     | N/A                             | N/A                              |
| -5   | -586                     | N/A                             | N/A                              |
| 0  | -456                     | N/A                             | N/A                              |
| +5   | -273                     | N/A                             | N/A                              |
| +10  | -166                     | N/A                             | N/A                              |
| +15  | -79                      | N/A                             | N/A                              |
| +20  | -6                       | +14                             | +22                              |
| +25  | -7                       | N/A                             | N/A                              |
| +30  | -56                      | N/A                             | N/A                              |
| +35  | -75                      | N/A                             | N/A                              |
| +45  | -64                      | N/A                             | N/A                              |
| +50  | -3                       | N/A                             | N/A                              |
| +55  | 55                       | N/A                             | N/A                              |
| +60  | 185                      | N/A                             | N/A                              |

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- All test results contained in this engineering test report are traceable to National Institute of Standards and Technology (NIST)