

RE: FCC ID: PHX-MMDS-BASE2\_ATCB000975

1. Please complete the technical contact information on the 731 form.

**\*\* Completed. New 731 form uploaded.**

2. This device is an MMDS transmitter used typically for internet service connections etc. It does not appear to provide any of the modulation or services required for ITFS stations. While part 21 and part 74 use many frequencies on a shared basis, in order to fit into part 74 the device must provide the particular service of part 74. Please note that *Instructional television fixed station*. Is a "fixed station licensed to an educational organization and intended primarily for video, data, or voice transmissions of instructional, cultural, and other types of educational material to one or more fixed receiving locations. " The intent of part 74I is to "...be used to transmit formal educational programming offered for credit to enrolled students of accredited schools, with limited exceptions as set forth in paragraph (e)(9) of this section and Secs. 74.990 through 74.992." While part 74I allows OFDM modulation, the service must still apply. Please explain how, other than similar modulation characteristics, this device fits the definition and requirements of a part 74I "Instructional Television Fixed Service".

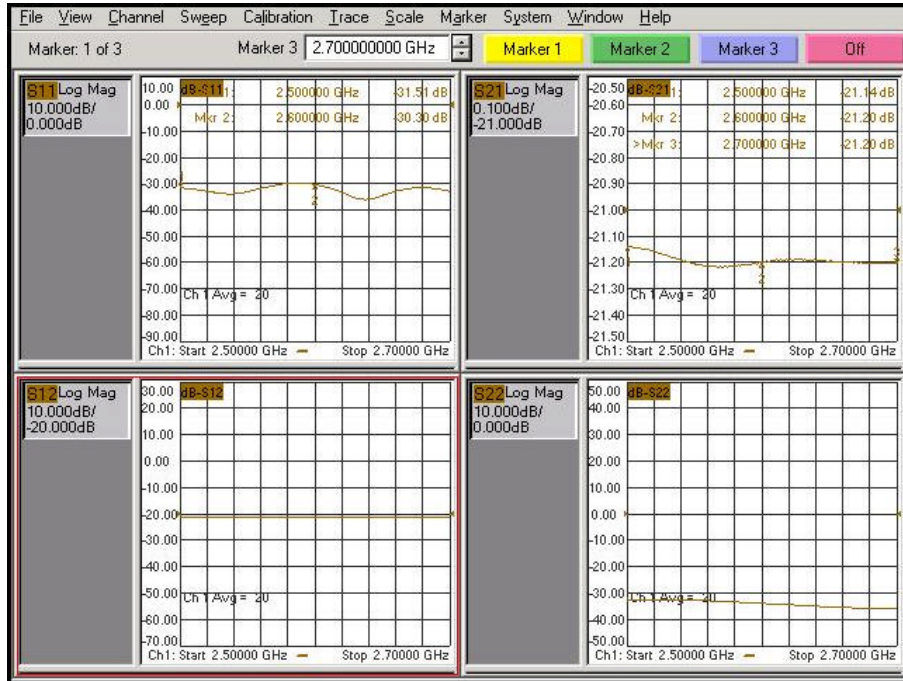
**\*\* While NextNet Wireless, Inc. does believe that most system installations of the Expedience product will be used for an internet connection at the end user computer, that is not the only capability of the system. A license holder in the ITFS spectrum could construct a system that utilizes the NextNet Wireless, Inc. Expedience products within a proprietary closed wireless Ethernet network that may or may not make a connection to the internet. A NextNet Wireless, Inc. system will transport information from one point to another via a wireless medium. The specific content of the user data being transmitted is beyond the control of NextNet Wireless, Inc. The requirement of ensuring that an ITFS channel is utilized for "educational purposes" rests solely on the channel license holder and system operator. NextNet Wireless, Inc. is responsible for insuring that it's products supplied to the system operator meet the applicable technical equipment requirements that are detailed within the FCC rules.**

3. Please note that you have a calculation error on page 5 of the report under "Test Conclusions" Vertically polarized. In the report your state "Transmitted Power =  $33 + 19 = 53$  dBim. Please note the  $33_{19}$  is 52. Please correct.

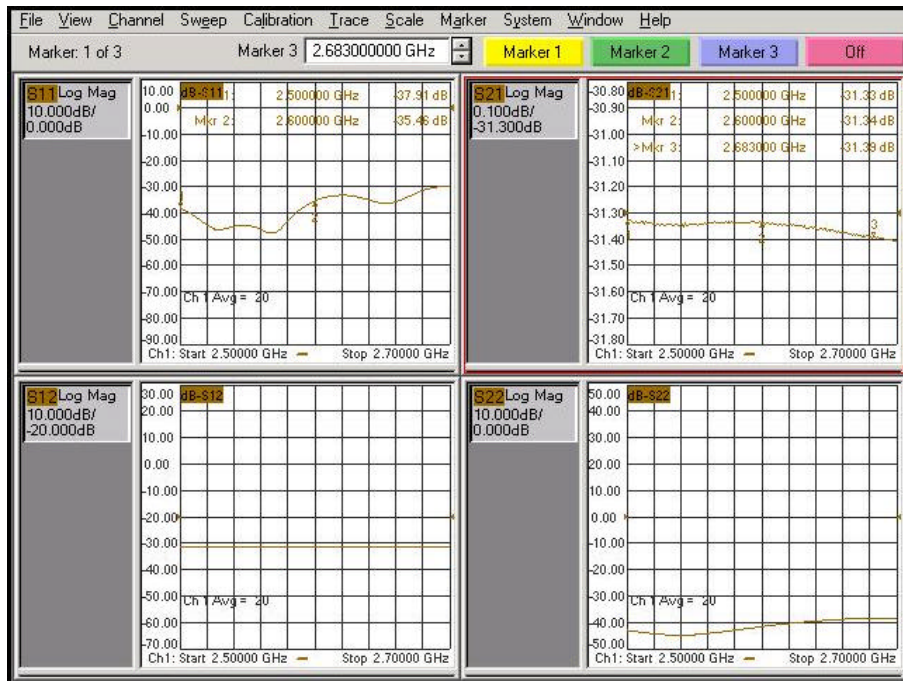
**\*\* Completed. New test report uploaded.**

4. Please note that on page 3and 52 of the report you state calibration is not required for the inline attenuator used in power and antenna spurious emissions measurements. The calibration chart also does not show the directional coupler as being calibrated. Please note that any test equipment used that has a direct affect of the measurement accuracy needs to be calibrated or the correction factors at least need to be known. When using non-calibrated equipment it is not possible to clearly and unambiguously state the measurement results. Please provide evidence that the attenuator used was calibrated. Alternately, please provide evidence that the attenuator was the value as stated and that it was appropriately included in calculating power and conducted spurious emissions. Please show the sample calculations using all appropriate inline losses or gains in the measurement system. How are they accounted for? For example, what affect does the MMDS channel filter have on the measurement of the 5 watt setup? What is the loss, if any, of the directional coupler?

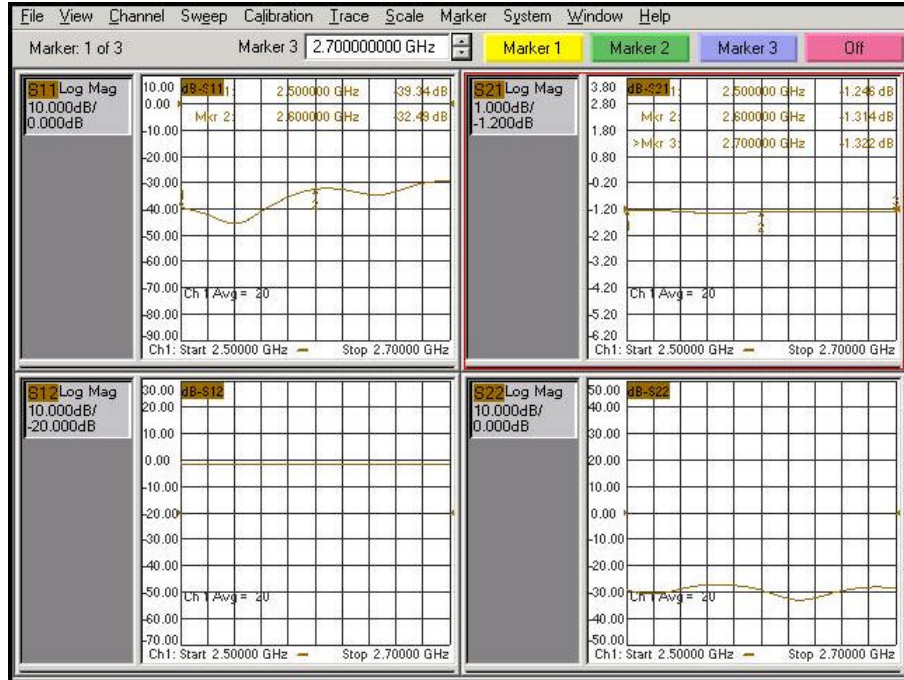
**\*\* Attenuators are not routinely sent to a calibration laboratory for certification like a power meter or spectrum analyzer would be. For all measurements, the loss of the coax, attenuator, and directional coupler is verified by means of a network analyzer measurement. Once the loss of the coax, attenuator, and thru path of the directional coupler is known, this value is entered into the reference level offset of the power meter such that power measurements can be displayed without additional mathematical manipulation.**



**20 dB attenuator / directional coupler thru path / coax cable RF characteristics**



**30 dB attenuator / directional coupler thru path / coax cable RF characteristics**



directional coupler thru path RF characteristics

The MMDS channel filter provides additional loss to the transmitted signal. As discussed in Exhibit 12, the base station is calibrated for RF power at the antenna connector prior to the addition of the channel filter. The test data supplied in the test report was measured without the MMDS channel filter installed. The test report has been updated to include the transmit power at the output of the channel filter.

For modulation mask and occupied bandwidth measurements, the attenuators are selected to ensure that the spectrum analyzer is not being over driven and generating distortion within the analyzer. The coupled path of the directional coupler is approximately 20 dB, add 26 dB for the attenuators and 1 dB for coax loss and the overall loss is about 47 dB. The specific loss of this signal path is not utilized for any calculations and is therefore not known to the degree of accuracy as is required for power measurements. Measurements performed via the coupled path of the directional coupler rely on the calibration of the spectrum analyzer to report a valid representation of the applied signal.

- Please note that while the method RECOMMENDATION ITU-R SM.329-10 may be accepted by and incorporated in many ETSI standards, it is not a recognized FCC spurious emissions certification test procedure for licensed devices. Radiated spurious emissions are required by the FCC to be a measurement done by antenna substitution methods. Please provide radiated spurious emissions in accordance with FCC accepted procedures for making EIRP measurements using antenna substitution test methods.

**\*\* The test report has been updated with the antenna substitution results provided by TUV product services.**