

6W78095, Response to FCC queries
 BelAir Networks

No.	FCC review list	Response
1	General description of device and applicable rule parts/sections	<p>Applicable rule for this module is part 27, Frequency of operation is as per part 27.5 subpart i 2 iii.</p> <p>Please refer to "RAR20007001_Block diagram and theory of operation" for the general description of the device.</p> <p>Please refer to Nemko Report " 6W78095" Page 9 for applicable rules parts/sections.</p>
2	Summary of what constitutes the unique, evolved, or different technology	<p>The module is designed for fixed point to point operation using TDD mode operating under 802.16-2004 WirelessMAN-OFDM phy interface</p> <p>Please refer to "RAR20007001_Block diagram and theory of operation"</p>
3	Operational description	<p>This module TDD mode link only used for fixed point to point type applications.</p> <p>Please refer to "RAR20007001_Block diagram and theory of operation"</p>
4	Operating and installation manual(s)	<p>Please refer to " WRM_PM-B2XH068AA-A_Manual"</p>
5	Test procedures and results, including justification for selected subset of operational modes	<p>The module was set up for certification in the same mode as it will be used, namely TDD mode, 64QAM rate ¾. Spectral component don't change for other OFDM modes available , namely OFDM BPSK, QAM, 16QAM. Power measurements were performed using 97% downlink frame (tx) instead of the normal 50/50. Please refer to Nemko report 6W78095 for test procedures and results.</p>
6	Info about how device operates as fixed, mobile, or portable station within the network protocol, e.g., channel bandwidths, modulations, power control / adjustments	<p>Module is used in a fixed point to point mode .</p> <p>For details on protocol and modulations please refer to Table 1 of RAR20007001_Block diagram and Theory of Operation.</p>
7	Availability of and specific test equipment required, or justification how factory-test-mode (FTM) re! presents and covers end-use conditions	<p>In production the module will be tested in the mode that it will be used as per Table 1 of RAR20007001_Block diagram and Theory of Operation. Power measurements are corrected for the 50 % duty cycle of the transmit system.</p>
8	Info about applicable and/or loosely-related public standards, if any, e.g., 802.16 and Conformance standards, and how, why, what parts of these are applicable or not	<p>The module conforms to the IEEE 802.16-2004 standard, using the TDD mode and 64 QAM modulation. Please refer to RAR20007001_Block diagram and Theory of Operation. For FCC part 27 sections the module was tested against, please refer to Nemko Report 6W78095, page 9 for information.</p>
9	Evaluate smart-antenna modes per FCC procedures, where applicable, or for TCB permit-but-ask submit additional	<p>Not Applicable.</p>

	details herein about adaptive antennas	
10.	Address how FDD and/or TDD modes are allowed under FCC allocated frequency range, i.e., in terms of available blocks and block sizes, and paired (uplink/downlink) or single bands	The module will be used in TDD mode only , using the BRS frequencies for the following channels as per FCC part 27.5. Channels E1 to G3. Please refer to "RAR20007001_Block diagram and theory of operation"
11	Details about selected sub-channelizations, permutations, profiles tested and why	Sub-channelization is not used part of 802.16-2004 WirelessMAN-OFDM phy interface standard. Please refer to "RAR20007001_Block diagram and theory of operation" .
12	WiMAX devices are capable of operating in highly dynamic conditions with various combinations of operating configurations to optimize throughput and performance. Because many of these highly optimized dynamic configurations normally do not provide stable conditions for compliance testing, standard test mode configurations for product conformance evaluation should be specified. Based on the design requirements of each wireless technology and provided the output power is not higher, tests may not be required for all combinations operating configurations.	
12(a)	Like the FCC 3G procedures, for example info about using output power as a pre-screening tool among a larger subset of the available device configurations, would be useful and is requested for inclusion in filing.	This module transmits a nominal 20 dBm of power or less. Once the power is set it remains fixed and is not dynamically changed during operation. The module was tested at maximum power. Please refer to "RAR20007001_Block diagram and theory of operation" and "WRM_PM-B2XH068AA-A_Manual" page 7
12(b)	The output conditions of the device should be closely monitored during testing with applicable equipment, communications test set, analyzers or power meters, to ensure the required operating conditions are satisfied during the compliance measurements.	Please refer to Nemko Report 6W78095 outlining equipment used for testing.
12(c)	The device setup and operating parameters, and test equipment setup parameters, should be fully documented in the test report to enable the tests to be repeated easily and with sufficient accuracy.	Please refer to Nemko Report 6W78095
13	Please be sure to identify, justify, and describe:	
13(a)	a) specific RF Profiles, certification profiles, test cases, test scripts that are appropriate for and were used to test this device, among those in the applicable conformance documents and standards	Module is used in a fixed point to point mode ,TDD, 64 QAM , and this is how the module was tested for certification. Maximum output power was used for all measurements. For details on protocol and modulations please refer to Table 1 of RAR20007001_Block diagram and Theory of Operation.
13(b)	relevant subclause cross-references to standards	TDD mode, clause 8.1.3.2 of 802.16-2004 .

13(c)	specific modulations, subchannelizations, permutations used for each test	Modulation is TDD 64 QAM , no subchannelization is used.
13(d)	d) specific test eqpt setup info and installed options/add-ons	Please refer to Nemko Report 6W78095