MULTITECH MTXDOT-NA1 Series xDot Arm Mbed Low Power RF Module User Manual

Addendum- Multitouch dot
User Manual

Model: MTXDOT-NA1-xxx

Contents

MTXDOT-NA1 Series dot Arm Med Low Power RF Module

Limited Module approval:
This Limited Module approval with underlid mount omnidirectional folded dipole antenna is only approved with the host device water meter valve application tested. Any other use of this limited module will require a certification review and testing applicable to the new application and a Class II Permissive Change or other FCC/IC approval as applicable.
This antenna addition is based on testing of the listed antenna (See page 3 of this addendum) with the host device in this Limited Module approval to the following guidelines, and review of the test data and host design:

- KDB 178919 D01 Section II, A, 3, (New antenna type) and FCC Part 15.203.
  - o Antenna type: Folded dipole antenna
  - o 2 dib gain (see page 3 and 4 of addendum)
- KDB 996369 D01 section III paragraph B: Limited the installation to a specific host or hosts, and KDB 996369

III, B.

- KDB 447498 D04 Module Integration Guide, and KDB 447498 RF exposure compliance.
- KDB 996369 D03 section 2 Limited Module Procedures, RF exposure.

Host testing and test mode:
For Host integrator, testing the device requires pairing with another device and running at highest output power, or the use of test commands to set the product under test to transmit at a high duty cycle and highest power setting.
The Limited Module transmitter is only approved for FCC/Canada transmitter rules according to the FCC Grant /Canada Certification.
The host product manufacturer is responsible for compliance to any FCC/Canada rules applicable to their host product.

FCC Grant – Notes for Limited Module Approval:
The OEM should follow all grant notes listed below. Otherwise, further testing and device approvals may be necessary.
FCC Definitions
Portable: (§2.1093) — A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.
Mobile: (§2.1091) — A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.
This device is a mobile device with respect to RF exposure compliance. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operate in conjunction with any other antenna or transmitter except in accordance with FCC multi- transmitter product guidelines. Installers and end-users must be provided with specific information required to satisfy RF exposure compliance for installations and final host devices. (See notes below) Compliance of this device in all final host configurations is the responsibility of the Grantee.

Notes:

1. Host design configurations constituting a device for portable use (<20 cm from human body) requires separate FCC/IC approval.
2. This Limited Module approval is only applicable to the host device water meter valve and omnidirectional folded dipole antenna application tested. Any other use will require additional testing and Class II Permissive Change approval. Host integration is subject to KDB 996369 and includes host integration and simultaneous transmissions if more than one intentional radiator.

Wireless notice for host integrator user manual:
This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC Radio Frequency (RF) Exposure Guidelines. This transmitter must not be co-located or operate in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product guidelines. The antenna should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
Antenna List for this Limited Module Approval
See addendum page 3
Modification Statement
Multi Tech has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

Host label information:
The module label must be visible to users, or the host product label or e-label must contain the following:
"Contains FCC ID: AU792U13A16858"
"Contains IC ID: 125A-0055"

Compliance Statement FCC and Canada:
o This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

CAN ICES-3 (B) / NMB-3 (B)
This Class B digital apparatus complies with Canadian ICES-003.
900MHz Underlid Antenna

Features:

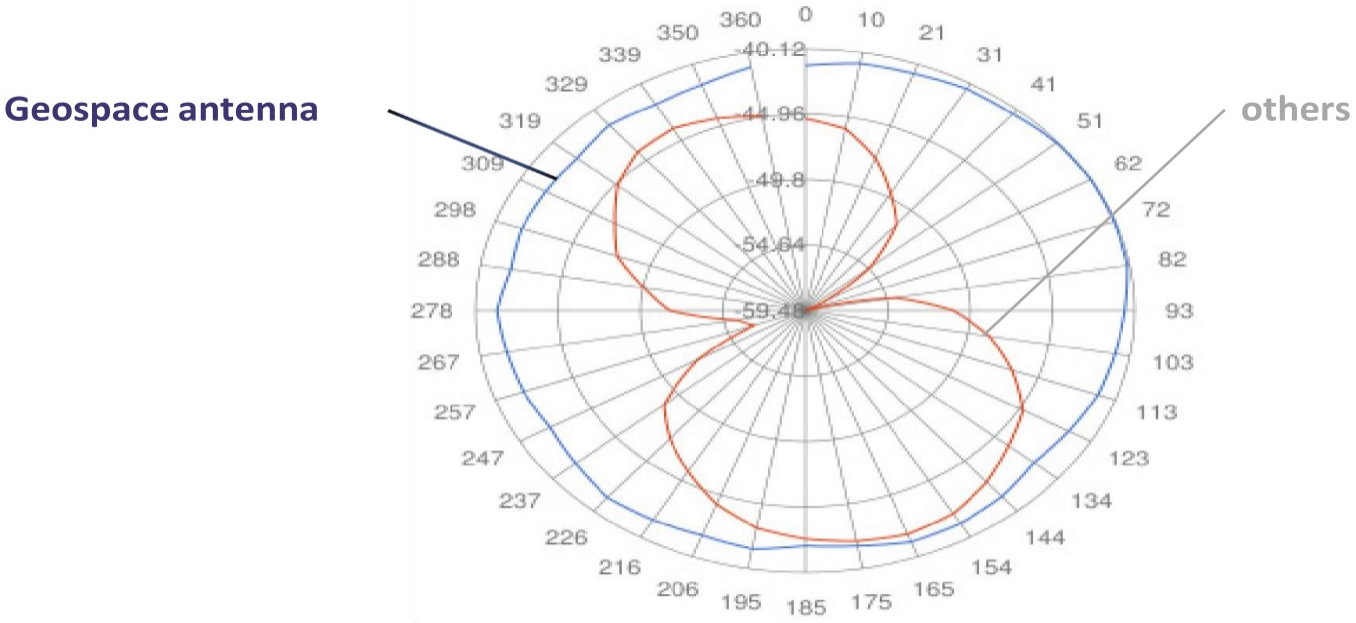
- Screw-on design mounts to underside of lids
- Robust construction
- Hermetically sealed for extended life
- Larger gain reception area compared to other brands

ELECTRICAL SPECIFICATIONS

Freqency Band	902–928 MHz
Impedance	50 Ω
E-Plane HPBW	30° typical
Power Handling	5 W
VSWR	< 1.3 : 1 typical
Gain	2 dib
H-Plane HPBW	Omnidirectional
Polarization	Vertical

MECHANICAL SPECIFICATIONS

Height	2 ½ inches (6.35 cm)
Connector	Proprietary waterproof GNC
Operational Range	–40 to 158° F (–40 to 70° C)
Diameter (Ground Plane)	4 ¼ inches (10.8 cm)
Mounting Type	1.75-8 ACME Thread Dual Blunt Start, Blunt End



Comparison with industry standard

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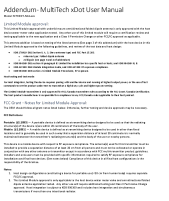
Documents / Resources

	MULTITECH MTXDOT-NA1 Series xDot Arm Mbed Low Power RF Module [pdf] User Manual MTXDOT-NA1 Series xDot Arm Mbed Low Power RF Module, MTXDOT-NA1 Series, xDot Arm Mbed Low Power RF Module, Arm Mbed Low Power RF Module, Low Power RF Module, RF Module, Module

References

- Geospace Technologies | Leading Provider of Vibrational Technology Solutions