

3 Responsible Party

The responsible party, according to §2.909 is the manufacturer or the importer. However, §2.1077 (3) states that the responsible party for a Declaration of Conformity shall be located in the USA. Therefore an employee of Airspan Networks, Inc. shall sign FCC Declarations of Conformity. For all other purposes, Airspan Communications Limited shall be deemed the responsible party.

4 Route to Conformity

According to §15.101 for unintentional transmitters and §15.201 for intentional transmitters, the routes for conformity are as follows:

| Product | Route | Reason |
|---------|--|---|
| SCRT | Certification by the Commission or TCB | It is an intentional transmitter |
| SDR | Verification Or Certification | It is a Class A unintentional transmitter Or It is part of an intentional transmitter |

4.1 SCRT

Testing is required

4.2 SDR

To be discussed. Baseband RF signal originates on SDR and arrives on SCRT as an I/Q stream.

4.3 Electromagnetic Exposure

Airspan have written a report, [005-8390-00_C](#), demonstrating compliance with the human exposure requirements detailed in EN50385:2002 – this should suffice for the FCC requirements.

5 System Configuration

MicroMAX-SDR is an IEEE802.16-2004 WiMAX basestation designed to be located on utility poles or roof tops providing point to multi-point WiMAX coverage from an all outdoor base station over micro-cellular¹ ranges to various CPE types.

SDR – Software defined Radio base-unit contains mains to dc power supply to supply dc power to the 1179 digital card within the SDR and 48V DC to power the external SCRTs.

This unit does **not** operate as a software defined radio as defined by Report and Order (FCC 05-57):

FCC 05-57 defines “Software Defined Radio” as:

A radio that includes a transmitter in which the operating parameters of frequency range, modulation type or maximum output power (either radiated or conducted), or the circumstances under which the transmitter operates in accordance with Commission rules, can be altered by making a change in software without making any changes to hardware components that affect the radio frequency emissions.

It goes on to say:

We find that the rules we are adopting that require the certification of certain radios as software defined radios will not be unduly burdensome on manufacturers or restrain the development of technology. Only a relatively small number of radios will be affected by this requirement because most RF affecting radio software is not designed or expected to be modified by a party other than the manufacturer, and we are not changing the rules for radios that are not designed or expected to be modified by a party other than the manufacturer. Thus, there will be no change to the authorization requirement for the vast majority of devices including cellular/PCS telephones, land mobile transceivers and Wi-Fi equipment, provided the software that directly or indirectly controls the RF emissions of these devices is not designed or expected to be modified by a party other than the manufacturer. Also, manufacturers of radios that are software modifiable typically already take steps to prevent unauthorized modifications to the software in a radio, so we expect that only rarely will manufacturers have to make significant design changes to comply with the security requirements.

The SDR uses [Picochip](#) FPGAs that are designed to [allow future upgrade from 802.16-2004 WiMAX to 802.16e](#), and any future upgrade would be fully under the control of the manufacturer.

A MicroMAX-SDR Base Station consists of the following components:

1x Software Defined Radio (SDR) (including SDR boards plus PSU for SDR + SCRTs)

1x or 2x Single Channel RF Transceiver (SCRT)

1x or 2x Antenna (customer supplied)

¹ Micro-cell implies micro RF coverage due to expected base station and CPE deployment types. Ie. Low sited base stations serving indoor CPE.