

## MA-WABSA55-DP15\_g

Preliminary

### 5.0-6.0 GHz Beam Steering Active Antenna, Azimuth Scan

Dual polarized Beamforming antenna for beam steering applications :

- 100 Deg coverage by 20 Deg Beamwidth.
- 15 options for beam directions with 5 Deg step.
- Reduces co-channel interferences and pointing independent beams toward various clients.



### Specifications

#### Electrical

|                                             |                                    |
|---------------------------------------------|------------------------------------|
| Frequency range                             | 5.0-6.0 GHz                        |
| Polarization                                | Dual Pol                           |
| Elevation 3dB beam width                    | 8° - 10°                           |
| Azimuth 3dB Beam width                      | 15° - 20°                          |
| Azimuth scan step                           | (3-7)°                             |
| Azimuth beam control range *                | +/-45° *                           |
| Side lobes, typ.                            | -10 dB                             |
| Modes (External control)                    | Rx or Tx, Beamforming or Broadcast |
| <b>Beamforming</b> (V & H polarization):    |                                    |
| Gain of passive antenna part, typ.          | 21dBi                              |
| Gain with LNA's (Broadside), typ.           | 32dBi                              |
| Noise figure (Rx channel), typ.             | 5-6 dB                             |
| Output Operating RF Power (Output PA), typ. | 19-23dBm                           |
| Gain with PA (Broadside), typ.              | 40dBi                              |
| <b>Broadcast</b> (V & H polarization):      |                                    |
| Gain of passive antenna part, typ.          | 15dBi                              |
| Azimuth 3dB Beam width                      | 60°-70°                            |
| Azimuth 5dB Beam width                      | 90°-100°                           |
| Gain with LNA's, typ.                       | 33dBi                              |
| Output Operating RF Power (Output PA), typ. | 19-23dBm                           |
| Gain with PA, typ.                          | 34dBi                              |
| Max Input RF Power (damage)                 | 18dBm                              |
| VSWR                                        | 2 : 1                              |
| Impedance                                   | 50 Ohm                             |
| Front to Back Ratio, min.                   | -30 dB                             |
| Cross Polarization, typ.                    | -20 dB                             |
| Port-Port Isolation, typ.                   | -25 dB                             |
| Beam and Modes selection time, typ.         | 1-2 us                             |
| External Power supply                       | +5V ; PoE (+48 B)                  |
| External control interface                  | GPIO (7 wires)                     |
| Lighting protection                         | DC grounded                        |

\* - For Azimuth beam control range +/- (30-45)° : Gain = Gain, typ. - (~3) dB; Side Lobes < -(1-3)dB.

#### Mechanical

|                    |                                   |
|--------------------|-----------------------------------|
| Dimensions (HxWxD) | 370x370x60mm (TBD)                |
| Weight             | TBD                               |
| Connectors RF      | SMA Type Female                   |
| DC connectors      | TBD                               |
| Radome             | UV Protected Polycarbonate, white |

#### Environmental

|                       |                                           |
|-----------------------|-------------------------------------------|
| Operating Temperature | -20°C to +60°C                            |
| Dynamics              | IEC 60721-3-4                             |
| Humidity              | ETS 300 019-1-4, EN 302 085 (annex A.1.1) |
| Salt Fog              | IEC 68-2-11                               |
| Water Proofing        | IP-67                                     |

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3 Hamanor st. Holon 5886103, P.O.Box 1852 Holon 5811801, Israel

Tel : +972 3 5500001

Fax : +972 3 5500077

E-mail : [info@mars-rf.com](mailto:info@mars-rf.com)

Website : [www.mars-rf.com](http://www.mars-rf.com)