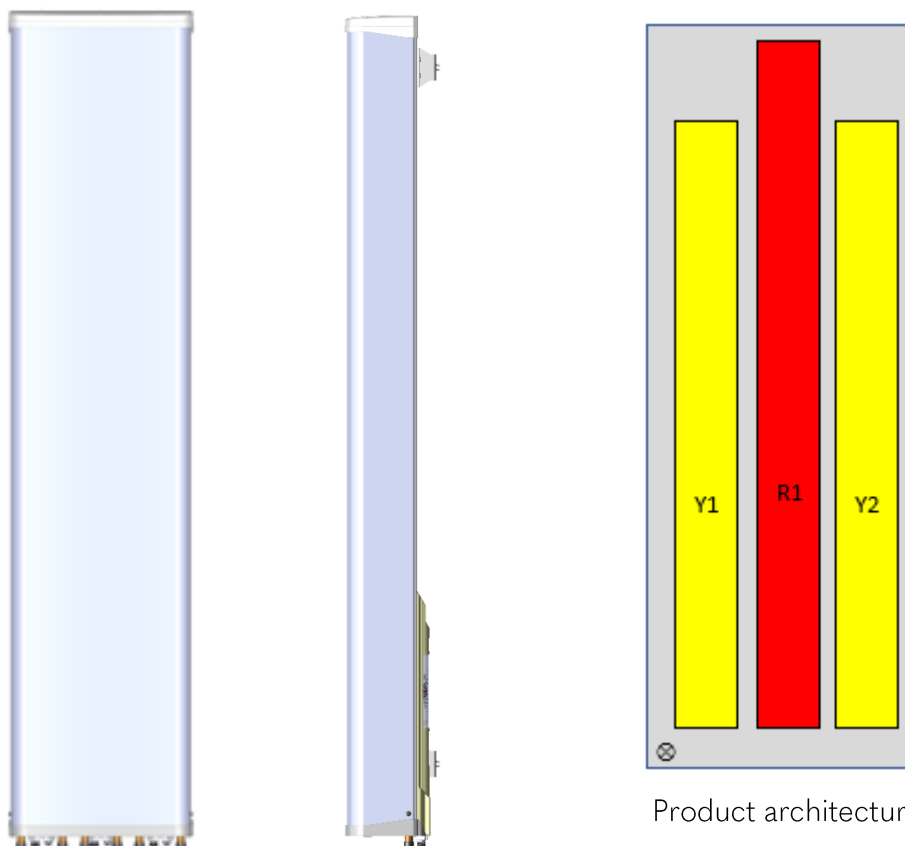


| 6-port antenna | Unit | R1 | Y1 | Y2 |
|-----------------|------|------------|-------------|-------------|
| Frequency range | MHz | 698 – 960* | 1695 - 2690 | 1695 - 2690 |
| Polarization | | x | x | x |
| HBW | ° | 65 | 65 | 65 |
| Gain | dBi | 17 | 21 | 21 |
| EDT range | ° | 2 - 10 | 1 - 10 | 1 - 10 |



The CellMax new form factor multiband antennas extends line of the ultra-wide band antennas, combining wide band width in the high bands with wide band in the low bands, still featuring exceptionally low insertion loss in a compact package.

The design aims at low differences between the ports in terms of gain (per band), azimuth and elevation patterns, and a very good electrical tilt precision. New for these antennas is the built-in aim in the bottom plate, which can help making sure the antenna is also mechanically aimed correctly, allowing the antenna potential to the highest in the industry cell throughput to come to fruition.

Electrical Parameters R1:

| Parameter (Radiation) | | | |
|-----------------------------------|-----|-------------------|-------------------|
| Frequency band | MHz | 698 - 896 | 880 – 960* |
| Gain | dBi | 17.0 | 17.2 |
| Azimuth Parameters | | | |
| Azimuth (3dB) Beam Width | ° | 68 | 71 |
| Azimuth Beam Squint | ° | 3 | 5 |
| Front to Back Ratio (total power) | dB | >25 (typical >27) | >24 (typical >27) |
| Cross-Polar Discrimination (0°) | dB | >25 | >23 |
| Sector Power Ratio | % | 6.6 | 7.4 |
| Elevation Parameters | | | |
| Elevation (3 dB) Beam Width | ° | 9.4 | 8.0 |
| Electrical Downtilt Range | ° | 2 – 10 | 2 – 10 |
| First upper Sidelobe suppression | dB | >15 (typical >20) | >16 (typical >20) |
| First Nullfill Below Horizon | dB | - | - |

| Parameter (ports) | | | |
|---------------------------------------|----------|-----------|-----------|
| Frequency band | MHz | 698 - 896 | 880 – 960 |
| Impedance | Ω | 50 | |
| VSWR/Return Loss | _/dB | 1.5 / 14 | |
| Intra Array Isolation | dB | 28 | 28 |
| Inter Array Isolation | dB | 28 | 28 |
| Passive Intermodulation @ 2x43 dBm CW | dBc | <-155 | |
| Maximum Input Power per port | W | 500 | |
| Antenna Insertion Loss | dB | 0.5 | 0.4 |

*Except 915 – 925 MHz

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Electrical Parameters Y1 and Y2:

| Parameter (Radiation) | | | | | |
|-----------------------------------|-----|----------------------|----------------------|----------------------|----------------------|
| Frequency band | MHz | 1710 - 1880 | 1850 - 1990 | 1920 - 2170 | 2490 - 2690 |
| Gain | dBi | 19.5 | 19.5 | 19.9 | 21.1 |
| Azimuth Parameters | | | | | |
| Azimuth (3dB) Beam Width | ° | 67 | 67 | 67 | 56 |
| Azimuth Beam Squint** | ° | 6 | 6 | 6 | 5 |
| Front to Back Ratio (total power) | dB | >24 (typical >27) | >27 (typical >30) | >25 (typical >28) | >27 (typical >30) |
| Cross-Polar Discrimination (0°) | dB | 21 | 25 | 21 | 19 |
| Sector Power Ratio | % | 3.2 | 3.3 | 3.6 | 2.6 |
| Elevation Parameters | | | | | |
| Elevation (3 dB) Beam Width | ° | 5.0 | 4.7 | 4.5 | 3.5 |
| Electrical Downtilt Range | ° | 1 – 10 | 1 – 10 | 1 – 10 | 1 – 10 |
| First upper Sidelobe suppression | dB | 17 | 17 | 16 | 13 |
| First Nullfill Below Horizon | dB | -24 | -21 | -20 | -16 |

| Parameter (ports) | | | | | |
|---------------------------------------|----------|-------------|-------------|-------------|-------------|
| Frequency band | MHz | 1710 - 1880 | 1850 - 1990 | 1920 - 2170 | 2490 - 2690 |
| Impedance | Ω | 50 | | | |
| VSWR/Return Loss | _/dB | 1.5 / 14 | | | |
| Intra Array Isolation | dB | 28 | 28 | 28 | 28 |
| Inter Array Isolation | dB | 28 | 28 | 28 | 28 |
| Passive Intermodulation @ 2x43 dBm CW | dBc | <-155 | | | |
| Maximum Input Power per port | W | 500 | | | |
| Antenna Insertion Loss | dB | 0.5 | 0.5 | 0.6 | 0.8 |

Mechanical parameters:

| Mechanical specification: | |
|---|----------------------|
| Connectors | 6 x 4.3 -10 female |
| Connector position | Bottom |
| Lightning protection | DC grounded |
| Height mm (inch) | 2197 (86.5) |
| Width mm (inch) | 420 (16.5) |
| Depth mm (inch) | 192 (7.6) |
| Antenna weight kg (lb) | 32 (70) |
| | |
| Wind load at 42 m/s (94 mph) | |
| Frontal N (lbf) | 1022 (230) |
| Lateral N (lbf) | 258 (58) |
| Survival wind speed m/s (mph) | 67 (151) |
| EPA m ² (inch ²) | 0.93 (1437) |
| | |
| Colour radome | Light Grey, RAL 7035 |
| Radome material | ASA |
| | |
| Mounting hardware: | |
| Mounting bracket | 2 |
| Bracket weight (complete) kg (lb) | 5 (11) |
| Pole diameter mm (inch) | 45 (1.8) - 120 (4.7) |
| Mechanical tilt range ° | 0 - 5 |

| Packing data | |
|------------------------------------|--|
| Box size mm (inch) | 2420 x 440 x 260 (95.3 x 17.3 x 10.2) |
| Box weight kg (lb) | 45 (99.2) |
| Maximum number of boxes per pallet | 10 |

Ordering information:

| Product number | Product description |
|----------------|--|
| 120330 | CMA-UBTLBHH/6517/21/21/MET including standard tilt mount |
| 120335 | CMA-UBTLBHH/6517/21/21/RET including standard tilt mount |
| | |

RET info

The RET actuator is AISG compatible and signals Single-Antenna RET Device type 0x01 (hex) in AISG protocol layer 2 as described in 3GPP TS25.462 (a.k.a. TYPE 1).

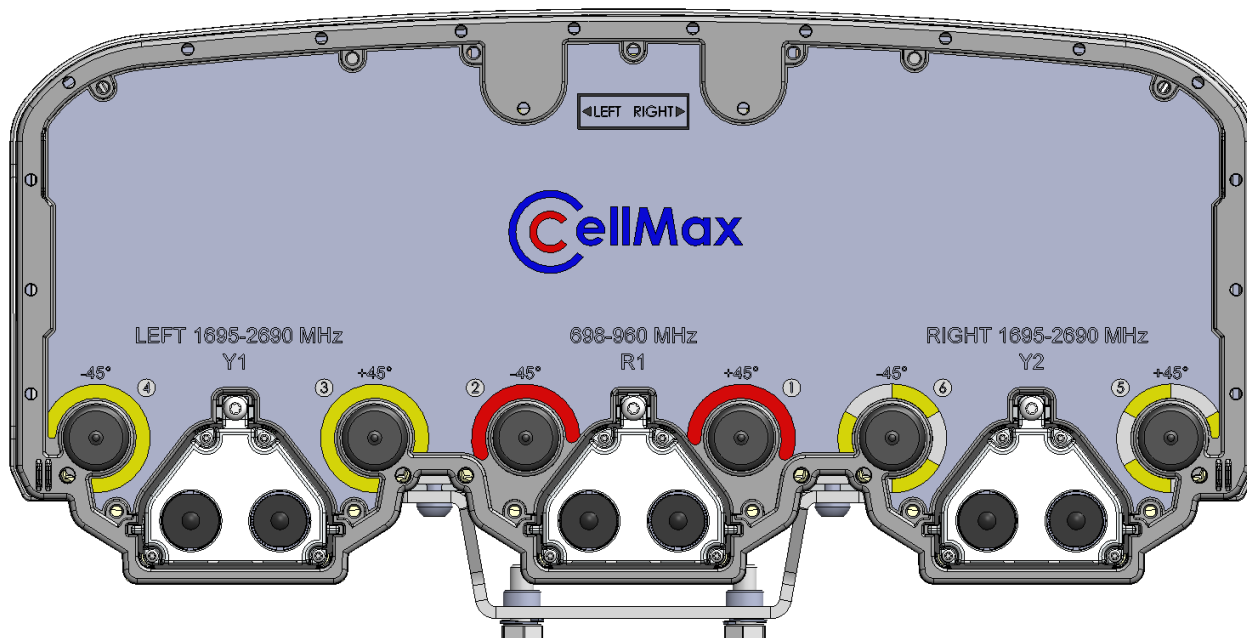
One RET actuator per antenna column, with individual AISG connectors in and out. The antenna columns are R1, Y1 and Y2.

Type CMA-RET-02

RET spare part order number: 110086.

12033x

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Bottom View

| Connector | Column | Notes |
|-----------|-----------|-------|
| 1 - 2 | R1 | |
| 3 - 4 | Y1 | |
| 5 - 6 | Y2 | |