

## APXVBBL26H\_43-C-I20

### Features

- 4 ports / 2 cross pol systems in low band (690-960 MHz)
- 2 ports / 1 cross pol system in very wide high band (1695-2690 MHz)
- Integrated and field replaceable SRET
- ACU HW version: HRLS200608H1.00
- Compliant with AISG v2.0 and 3GPP



|                  |                         |  |      |                |
|------------------|-------------------------|--|------|----------------|
| PRODUCT OVERVIEW | Frequency Range (MHz)   | (2x) 690-960                               |      | (1x) 1695-2690 |
|                  | Array                   | ■ R1                                       | ■ R2 | ■ Y1           |
|                  | Connector               | 1-2  | 3-4  | 5-6            |
|                  |                         | 6 PORTS                                    |      |                |
|                  | Polarization            | XPOL                                       |      |                |
|                  | Azimuth Beamwidth (avg) | 65°  |      | 65°            |
|                  | Electrical Downtilt     | 2-12°                                      |      | 2-12°          |
|                  | Dimensions              | 2498 x 468 x 168 mm (98.3 x 18.4 x 6.6 in) |      |                |

### ORDERING OPTIONS

Select from the following ordering options

| ANTENNA MODEL NUMBER | CONFIGURATION                         | MOUNTING HARDWARE                  | MOUNTING PIPE DIAMETER | SHIPPING WEIGHT     |
|----------------------|---------------------------------------|------------------------------------|------------------------|---------------------|
| APXVBBL26H_43-C-I20  | ACU-I20-H12I<br>Internal RET Included | APM50-HS<br>Beam Tilt Kit Included | 50-125 mm (2.0-4.9 in) | 47.5 kg (104.7 lbs) |



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## APXVBBL26H\_43-C-I20

### ELECTRICAL SPECIFICATIONS

■ R1

|   |                |                                      |              |              |            |
|---|----------------|--------------------------------------|--------------|--------------|------------|
| Frequency Range   | MHz            | 690-960                              |              |              |            |
|   | MHz            | 690-806                              | 790-894      | 880-960      |            |
| Polarization  | ---            | ±45°                                 |              |              |            |
| Gain  | Over all Tilts | dBi                                  | 16.0 ± 0.8   | 16.6 ± 0.5   | 16.8 ± 0.4 |
|   | Max Gain       | dBi                                  | 16.8         | 17.1         | 17.2       |
| Azimuth Beamwidth (3 dB)                                      | degrees        | 67.3° ± 5.7°                         | 62.6° ± 2.7° | 61.1° ± 4.7° |            |
| Elevation Beamwidth (3 dB)                                    | degrees        | 8.8° ± 0.5°                          | 8.1° ± 0.4°  | 7.3° ± 0.5°  |            |
| Electrical Downtilt   | degrees        | 2-12°                                |              |              |            |
| Impedance   | Ohms           | 50Ω                                  |              |              |            |
| VSWR (Return Loss)  | ---            | 1.5:1 (-14 dB)                       |              |              |            |
| Passive Intermodulation                                       | dBc            | -153 (3rd Order for 2x20 W Carriers) |              |              |            |
| Front-to-Back Ratio, Total Power, ± 30°                       | dB             | 21.3                                 | 23.2         | 24.4         |            |
| First Upper Side Lobe Suppression                             | dB             | 15.1                                 | 16.9         | 19.2         |            |
| Cross Polar Discrimination Over Sector                        | dB             | 11.3                                 | 10.7         | 10.2         |            |
| Cross Polar Discrimination (XPD) at Mechanical Boresight (0°) | dB             | 19.9                                 | 23.9         | 23.3         |            |
| Maximum Effective Power Per Port                              | Watts          | 250 W                                |              |              |            |
| Cross Polar Isolation   | dB             | 26                                   |              |              |            |
| Interband Isolation   | dB             | 26                                   |              |              |            |

Specifications follow BASTA guidelines.

### ELECTRICAL SPECIFICATIONS

■ R2

|   |                |                                      |              |              |            |
|---|----------------|--------------------------------------|--------------|--------------|------------|
| Frequency Range   | MHz            | 690-960                              |              |              |            |
|   | MHz            | 690-806                              | 790-894      | 880-960      |            |
| Polarization  | ---            | ±45°                                 |              |              |            |
| Gain  | Over all Tilts | dBi                                  | 15.8 ± 0.7   | 16.7 ± 0.3   | 16.9 ± 0.3 |
|   | Max Gain       | dBi                                  | 16.5         | 17.0         | 17.2       |
| Azimuth Beamwidth (3 dB)                                      | degrees        | 67.7° ± 7.2°                         | 62.2° ± 2.5° | 60.9° ± 4.5° |            |
| Elevation Beamwidth (3 dB)                                    | degrees        | 8.8° ± 0.6°                          | 8.1° ± 0.3°  | 7.3° ± 0.5°  |            |
| Electrical Downtilt   | degrees        | 2-12°                                |              |              |            |
| Impedance   | Ohms           | 50Ω                                  |              |              |            |
| VSWR (Return Loss)  | ---            | 1.5:1 (-14 dB)                       |              |              |            |
| Passive Intermodulation                                       | dBc            | -153 (3rd Order for 2x20 W Carriers) |              |              |            |
| Front-to-Back Ratio, Total Power, ± 30°                       | dB             | 20.2                                 | 23.2         | 24.2         |            |
| First Upper Side Lobe Suppression                             | dB             | 15.0                                 | 16.2         | 18.0         |            |
| Cross Polar Discrimination Over Sector                        | dB             | 9.8                                  | 11.2         | 9.9          |            |
| Cross Polar Discrimination (XPD) at Mechanical Boresight (0°) | dB             | 19.5                                 | 22.8         | 25.0         |            |
| Maximum Effective Power Per Port                              | Watts          | 250 W                                |              |              |            |
| Cross Polar Isolation   | dB             | 26                                   |              |              |            |
| Interband Isolation   | dB             | 26                                   |              |              |            |

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## APXVBBL26H\_43-C-I20

### ELECTRICAL SPECIFICATIONS

■ Y1

|   |                |         |                                      |             |             |              |              |
|---|----------------|---------|--------------------------------------|-------------|-------------|--------------|--------------|
| Frequency Range   |                | MHz     | 1695-2690                            |             |             |              |              |
|   |                | MHz     | 1695-1880                            | 1850-1990   | 1920-2170   | 2300-2400    | 2490-2690    |
| Polarization  |                | ---     | ±45°                                 |             |             |              |              |
| Gain  | Over all Tilts | dBi     | 16.2 ± 0.4                           | 16.7 ± 0.4  | 17.3 ± 0.7  | 17.4 ± 0.6   | 17.3 ± 0.9   |
|   | Max Gain       | dBi     | 16.6                                 | 17.1        | 18.0        | 18.0         | 18.2         |
| Azimuth Beamwidth (3 dB)                                      |                | degrees | 64° ± 6.6°                           | 64° ± 5.4°  | 57.6° ± 9°  | 59.2° ± 5.4° | 64.2° ± 2.9° |
| Elevation Beamwidth (3 dB)                                    |                | degrees | 6.7° ± 0.4°                          | 6.2° ± 0.4° | 5.9° ± 0.4° | 5° ± 0.3°    | 4.7° ± 0.4°  |
| Electrical Downtilt   |                | degrees | 2-12°                                |             |             |              |              |
| Impedance   |                | Ohms    | 50Ω                                  |             |             |              |              |
| VSWR (Return Loss)  |                | ---     | 1.5:1 (-14 dB)                       |             |             |              |              |
| Passive Intermodulation                                       |                | dBc     | -153 (3rd Order for 2x20 W Carriers) |             |             |              |              |
| Front-to-Back Ratio, Total Power, ± 30°                       |                | dB      | 25.5                                 | 26.4        | 28.0        | 28.4         | 25.9         |
| First Upper Side Lobe Suppression                             |                | dB      | 14.2                                 | 16.0        | 15.4        | 13.0         | 16.1         |
| Cross Polar Discrimination Over Sector                        |                | dB      | 13                                   | 12.3        | 9.1         | 5            | 0.5          |
| Cross Polar Discrimination (XPD) at Mechanical Boresight (0°) |                | dB      | 21.4                                 | 20.6        | 22.1        | 18.2         | 13.2         |
| Maximum Effective Power Per Port                              |                | Watts   | 200 W                                |             |             |              |              |
| Cross Polar Isolation   |                | dB      | 26                                   |             |             |              |              |
| Interband Isolation   |                | dB      | 28                                   |             |             |              |              |

Specifications follow BASTA guidelines.

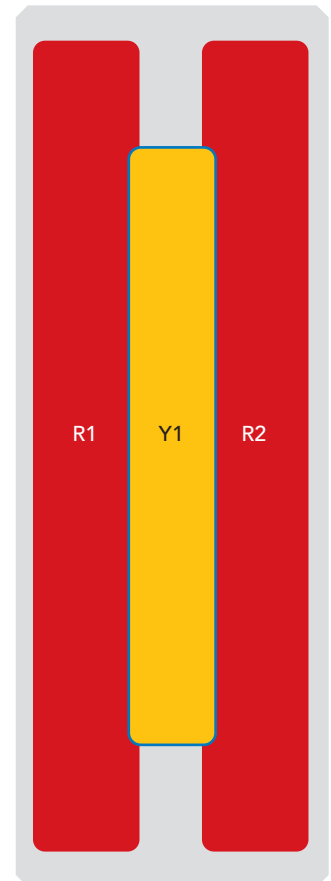
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## BOTTOM VIEW - LABELING



## ARRAY LAYOUT

| ARRAY | FREQUENCY     | CONNECTOR | CONNECTOR TYPE     | RET | AISG RET UID    |
|-------|---------------|-----------|--------------------|-----|-----------------|
| ■ R1  | 690-960 MHz   | 1-2       | (2x) 4.3-10 Female | R1  | RFxxxxxxxxxx-R1 |
| ■ R2  | 690-960 MHz   | 3-4       | (2x) 4.3-10 Female | R2  | RFxxxxxxxxxx-R2 |
| ■ Y1  | 1695-2690 MHz | 5-6       | (2x) 4.3-10 Female | Y1  | RFxxxxxxxxxx-Y1 |



The illustration is not shown to scale.

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### MECHANICAL SPECIFICATIONS

|  |                                       |   |
|--|---------------------------------------|---|
| Length                                     | mm (in)                               | 2498 (98.3)   |
| Width                                      | mm (in)                               | 468 (18.4)  |
| Depth                                      | mm (in)                               | 168 (6.6)   |
| Net Weight - Antenna Only                  | kg (lbs)                              | 33.4 (73.6)   |
| Net Weight - Mounting Hardware Only        | kg (lbs)                              | 9.0 (19.8)  |
| Wind Load<br>Rated at<br>150 km/h (93 mph) | Front                                 | N (lbf) 1080 (243)  |
|  | Side                                  | N (lbf) 475 (107)   |
|  | Rear                                  | N (lbf) 1205 (271)  |
| Survival Wind Speed / Rated Wind Speed     | km/h (mph)                            | 200 (150)   |
| Connector Type                             | --                                    | (6x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom |
| Radome Color                               | ---                                   | Light Grey RAL7035  |
| Radome Material                            | ---                                   | Fiberglass  |
| Lightning Protection                       | ---                                   | Direct Ground   |
| <b>Shipping</b>                            | Packing Size (Length x Width x Depth) | mm (in) 2698 x 544 x 293 (106.2 x 21.4 x 11.5)                        |
|  | Shipping Weight                       | kg (lbs) 47.5 (104.7)   |

### ENVIRONMENTAL SPECIFICATIONS

|                                  |         |                                  |
|----------------------------------|---------|----------------------------------|
| Environmental Standard           | ---     | ETS 300 019                      |
| Operating Temperature            | degrees | -40° to +60° C (-40° to +140° F) |
| Product Environmental Compliance | ---     | Product is RoHS Compliant        |

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### ACCESSORIES

Accessories may be ordered separately unless otherwise indicated.

| ITEM   | MODEL NUMBER | WEIGHT            |
|--|--------------|-------------------|
| Beam Tilt Mounting Bracket Kit for Pole Diameter 50-125 mm (2.0-4.9 in)<br><i>Shipped with antenna</i> | APM50-HS     | 9.0 kg (19.8 lbs) |

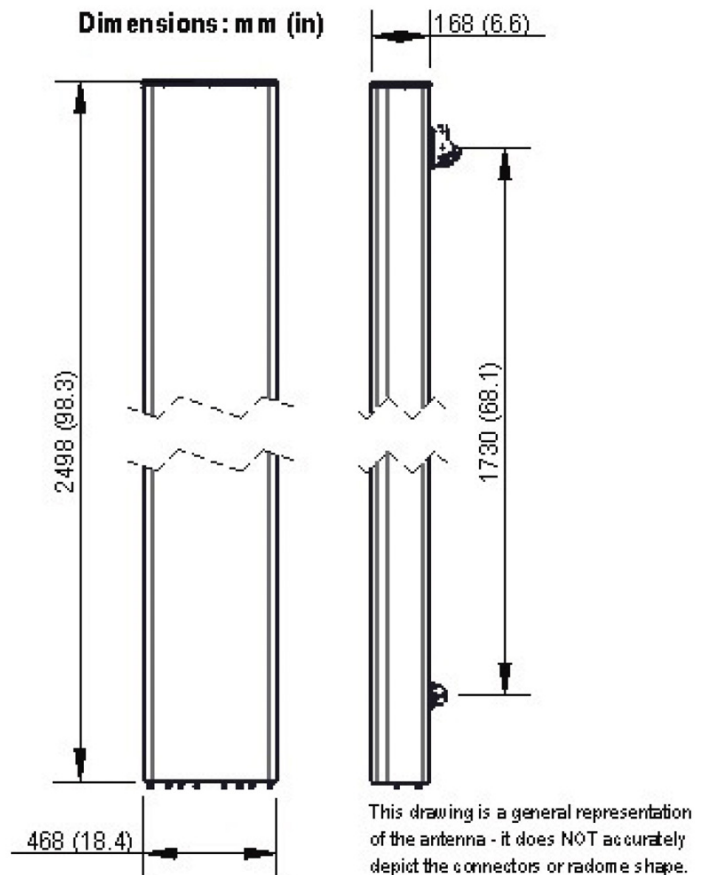
### INSTALLATION

Please read all installation notes before installing product.

|  |  |
|--|--|
|  | Always attach the antenna using all mounting points.       |
|  | Do not install antenna with the connectors facing upwards. |

### EXTERNAL DOCUMENT LINKS

[APM50 Mounting Kit Series Installation Instructions](#)



### NOTES

Specifications follow BASTA guidelines.

For additional mounting information, please check **External Document Links**.

For Radiating Patterns: [Request pattern files](#)