

## APXVB34L26AB\_43-C-I20 APXVB34L26AB\_43-C-I20S



### Features

- Hybrid twin beam antenna
- 2 ports / 1 cross pol system in low band (698-960 MHz), 65°
- 4 ports + 4 ports, each 33° beam based on 2 cross pol systems (1710-2690 MHz) separated by 60°
- Integrated and field replaceable SRET
- Optional with Site Sharing feature (Model name suffix -I20S)
- Compliant with AISG v2.0 and 3GPP

|                         |                         |   |                |      |      |      |
|-------------------------|-------------------------|---|----------------|------|------|------|
| <b>PRODUCT OVERVIEW</b> | Frequency Range (MHz)   | (1x) 698-960                                | (4x) 1710-2690 |      |      |      |
|                         | Array                   | ■ R1  | ■ Y1           | ■ Y2 | ■ Y3 | ■ Y4 |
|                         | Connector               | 1-2   | 3-4            | 5-6  | 7-8  | 9-10 |
|                         |                         | 10 PORTS                                    |                |      |      |      |
|                         | Polarization            | XPOL  |                |      |      |      |
|                         | Azimuth Beamwidth (avg) | 65°   | 33°            |      |      |      |
|                         | Electrical Downtilt     | 2-12°                                       | 2-12°          |      |      |      |
|                         | Dimensions              | 2690 x 350 x 200 mm (105.9 x 13.8 x 7.9 in) |                |      |      |      |

### ORDERING OPTIONS Select from the following ordering options

| ANTENNA MODEL NUMBER   | CONFIGURATION  | MOUNTING HARDWARE                     | MOUNTING PIPE DIAMETER | SHIPPING WEIGHT        | MOUNTING HARDWARE WEIGHT |
|------------------------|--|---------------------------------------|------------------------|------------------------|--------------------------|
| APXVB34L26AB_43-C-I20  | ACU-I20-B5<br>Internal RET<br>Included                     | APM50-B1<br>Beam Tilt Kit<br>Included | 50-110 mm (2.0-4.3 in) | 50.5 kg<br>(111.3 lbs) | 4.5 kg (9.9 lbs)         |
| APXVB34L26AB_43-C-I20S | ACU-X20-B5<br>Internal RET<br>for Site Sharing<br>Included | APM50-B1<br>Beam Tilt Kit<br>Included | 50-110 mm (2.0-4.3 in) | 50.5 kg<br>(111.3 lbs) | 4.5 kg (9.9 lbs)         |



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## APXVB34L26AB\_43-C-I20

### APXVB34L26AB\_43-C-I20S

#### ELECTRICAL SPECIFICATIONS

■ R1

|   |                |         |                                      |              |              |
|---|----------------|---------|--------------------------------------|--------------|--------------|
| Frequency Range   |                | MHz     | 698-960                              |              |              |
|   |                | MHz     | 698-806                              | 790-894      | 880-960      |
| Polarization  |                | ---     | ±45°                                 |              |              |
| Gain  | Over all Tilts | dBi     | 15.8 ± 1.0                           | 16.3 ± 0.8   | 16.4 ± 0.6   |
|   | Max Gain       | dBi     | 16.8                                 | 17.1         | 17.0         |
| Azimuth Beamwidth (3 dB)                                      |                | degrees | 68.4° ± 2.2°                         | 64.6° ± 3.7° | 62.3° ± 1.9° |
| Elevation Beamwidth (3 dB)                                    |                | degrees | 8.8° ± 0.9°                          | 7.8° ± 0.8°  | 7.0° ± 0.4°  |
| Electrical Downtilt   |                | degrees | 2-12°                                |              |              |
| Impedance   |                | Ohms    | 50Ω                                  |              |              |
| VSWR (Return Loss)  |                | ---     | 1.5:1 (-14 dB)                       |              |              |
| Passive Intermodulation                                       |                | dBc     | -150 (3rd Order for 2x20 W Carriers) |              |              |
| Front-to-Back Ratio, Total Power, ± 30°                       |                | dB      | 19.5                                 | 19.5         | 20.4         |
| First Upper Side Lobe Suppression                             |                | dB      | 18.5                                 | 13.7         | 14.8         |
| Cross Polar Discrimination Over Sector                        |                | dB      | 5                                    | 2.5          | 5.3          |
| Cross Polar Discrimination (XPD) at Mechanical Boresight (0°) |                | dB      | 18.8                                 | 20.3         | 21.9         |
| Maximum Effective Power Per Port                              |                | Watts   | 350 W                                |              |              |
| Cross Polar Isolation   |                | dB      | 26                                   |              |              |
| Interband Isolation   |                | dB      | 26                                   |              |              |

Specifications follow BASTA guidelines.

#### ELECTRICAL SPECIFICATIONS

■ Y1

|   |                |         |                                      |             |              |              |              |
|---|----------------|---------|--------------------------------------|-------------|--------------|--------------|--------------|
| Frequency Range                         |                | MHz     | 1710-2690                            |             |              |              |              |
|   |                | MHz     | 1710-1880                            | 1850-1990   | 1920-2170    | 2300-2400    | 2490-2690    |
| Polarization                            |                | ---     | ±45°                                 |             |              |              |              |
| Gain                                    | Over all Tilts | dBi     | 17.3 ± 0.7                           | 18.1 ± 0.4  | 18.5 ± 0.7   | 18.5 ± 0.8   | 18.1 ± 0.6   |
|   | Max Gain       | dBi     | 18.0                                 | 18.5        | 19.2         | 19.3         | 18.7         |
| Azimuth Beamwidth (3 dB)                |                | degrees | 32.7° ± 2.6°                         | 30.4° ± 2°  | 28.7° ± 2.9° | 24.1° ± 1.2° | 23.2° ± 2.3° |
| Elevation Beamwidth (3 dB)              |                | degrees | 7.9° ± 0.6°                          | 7.3° ± 0.3° | 6.9° ± 0.6°  | 6° ± 0.4°    | 5.6° ± 0.3°  |
| Beam Center                             |                | degrees | ±30°                                 | ±28°        | ±25°         | ±24°         | ±23°         |
| Electrical Downtilt                     |                | degrees | 2-12°                                |             |              |              |              |
| Impedance                               |                | Ohms    | 50Ω                                  |             |              |              |              |
| VSWR (Return Loss)                      |                | ---     | 1.5:1 (-14 dB)                       |             |              |              |              |
| Passive Intermodulation                 |                | dBc     | -150 (3rd Order for 2x20 W Carriers) |             |              |              |              |
| Front-to-Back Ratio, Total Power, ± 30° |                | dB      | 21                                   | 23          | 23.8         | 21.5         | 21.5         |
| First Upper Side Lobe Suppression       |                | dB      | 14.5                                 | 16.2        | 16.3         | 16.3         | 17.3         |
| Maximum Effective Power Per Port        |                | Watts   | 250 W                                |             |              |              |              |
| Cross Polar Isolation                   |                | dB      | 26                                   |             |              |              |              |
| Interband Isolation                     |                | dB      | 26                                   |             |              |              |              |
| Beam Isolation                          |                | dB      | 13                                   |             |              |              |              |

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## APXVB34L26AB\_43-C-I20

## APXVB34L26AB\_43-C-I20S

### ELECTRICAL SPECIFICATIONS

■ Y2

| Frequency Range                         |                | MHz     | 1710-2690                            |              |              |              |              |
|---|----------------|---------|--------------------------------------|--------------|--------------|--------------|--------------|
|   |                | MHz     | 1710-1880                            | 1850-1990    | 1920-2170    | 2300-2400    | 2490-2690    |
| Polarization                            |                | ---     | ±45°                                 |              |              |              |              |
| Gain                                    | Over all Tilts | dBi     | 16.9 ± 0.7                           | 17.7 ± 0.4   | 18.2 ± 0.9   | 18.2 ± 0.9   | 18.2 ± 0.6   |
|   | Max Gain       | dBi     | 17.6                                 | 18.1         | 19.1         | 19.1         | 18.8         |
| Azimuth Beamwidth (3 dB)                |                | degrees | 32.9° ± 3.2°                         | 30.5° ± 1.8° | 28.9° ± 2.9° | 24.9° ± 2.2° | 23.3° ± 1.3° |
| Elevation Beamwidth (3 dB)              |                | degrees | 8.1° ± 0.7°                          | 7.5° ± 0.3°  | 7° ± 0.7°    | 6.1° ± 0.3°  | 5.6° ± 0.3°  |
| Beam Center                             |                | degrees | ±30°                                 | ±28°         | ±25°         | ±24°         | ±23°         |
| Electrical Downtilt                     |                | degrees | 2-12°                                |              |              |              |              |
| Impedance                               |                | Ohms    | 50Ω                                  |              |              |              |              |
| VSWR (Return Loss)                      |                | ---     | 1.5:1 (-14 dB)                       |              |              |              |              |
| Passive Intermodulation                 |                | dBc     | -150 (3rd Order for 2x20 W Carriers) |              |              |              |              |
| Front-to-Back Ratio, Total Power, ± 30° |                | dB      | 22.3                                 | 22.3         | 23.4         | 21.6         | 21.4         |
| First Upper Side Lobe Suppression       |                | dB      | 17                                   | 18.6         | 18.1         | 17.4         | 17.5         |
| Maximum Effective Power Per Port        |                | Watts   | 250 W                                |              |              |              |              |
| Cross Polar Isolation                   |                | dB      | 26                                   |              |              |              |              |
| Interband Isolation                     |                | dB      | 26                                   |              |              |              |              |
| Beam Isolation                          |                | dB      | 13                                   |              |              |              |              |

Specifications follow BASTA guidelines.

### ELECTRICAL SPECIFICATIONS

■ Y3

| Frequency Range                         |                | MHz     | 1710-2690                            |              |              |              |              |
|---|----------------|---------|--------------------------------------|--------------|--------------|--------------|--------------|
|   |                | MHz     | 1710-1880                            | 1850-1990    | 1920-2170    | 2300-2400    | 2490-2690    |
| Polarization                            |                | ---     | ±45°                                 |              |              |              |              |
| Gain                                    | Over all Tilts | dBi     | 17.5 ± 0.5                           | 18.1 ± 0.4   | 18.6 ± 0.8   | 19 ± 0.7     | 18.3 ± 0.6   |
|   | Max Gain       | dBi     | 18.0                                 | 18.5         | 19.4         | 19.7         | 18.9         |
| Azimuth Beamwidth (3 dB)                |                | degrees | 32.3° ± 3°                           | 30.3° ± 1.6° | 28.5° ± 2.7° | 24.4° ± 1.9° | 23.7° ± 1.8° |
| Elevation Beamwidth (3 dB)              |                | degrees | 7.9° ± 0.5°                          | 7.4° ± 0.3°  | 6.9° ± 0.6°  | 6° ± 0.3°    | 5.5° ± 0.3°  |
| Beam Center                             |                | degrees | ±30°                                 | ±28°         | ±25°         | ±24°         | ±23°         |
| Electrical Downtilt                     |                | degrees | 2-12°                                |              |              |              |              |
| Impedance                               |                | Ohms    | 50Ω                                  |              |              |              |              |
| VSWR (Return Loss)                      |                | ---     | 1.5:1 (-14 dB)                       |              |              |              |              |
| Passive Intermodulation                 |                | dBc     | -150 (3rd Order for 2x20 W Carriers) |              |              |              |              |
| Front-to-Back Ratio, Total Power, ± 30° |                | dB      | 22.7                                 | 23.9         | 24.8         | 22.8         | 20.1         |
| First Upper Side Lobe Suppression       |                | dB      | 15.9                                 | 15.8         | 15.8         | 14.4         | 16.2         |
| Maximum Effective Power Per Port        |                | Watts   | 250 W                                |              |              |              |              |
| Cross Polar Isolation                   |                | dB      | 26                                   |              |              |              |              |
| Interband Isolation                     |                | dB      | 26                                   |              |              |              |              |
| Beam Isolation                          |                | dB      | 13                                   |              |              |              |              |

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## APXVB34L26AB\_43-C-I20

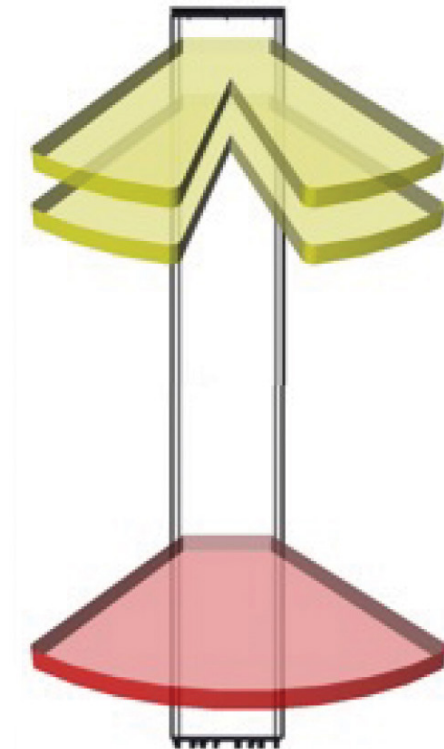
### APXVB34L26AB\_43-C-I20S

#### ELECTRICAL SPECIFICATIONS

■ Y4

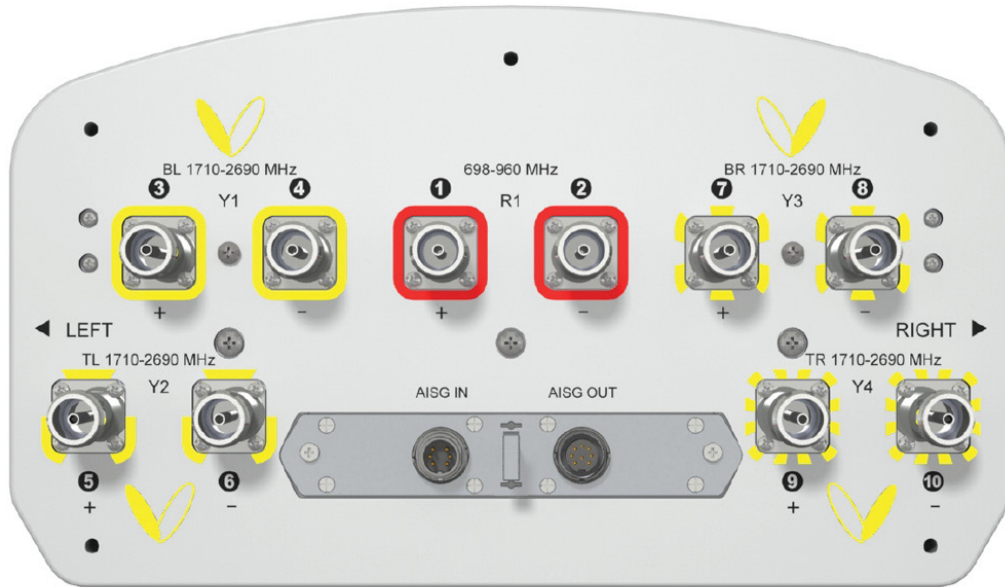
|   |                |         |                                      |              |              |              |              |
|---|----------------|---------|--------------------------------------|--------------|--------------|--------------|--------------|
| Frequency Range                         |                | MHz     | 1710-2690                            |              |              |              |              |
|   |                | MHz     | 1710-1880                            | 1850-1990    | 1920-2170    | 2300-2400    | 2490-2690    |
| Polarization                            |                | ---     | ±45°                                 |              |              |              |              |
| Gain                                    | Over all Tilts | dBi     | 16.9 ± 0.7                           | 17.6 ± 0.4   | 18.2 ± 0.9   | 18.5 ± 0.8   | 18.1 ± 0.7   |
|   | Max Gain       | dBi     | 17.6                                 | 18.0         | 19.1         | 19.3         | 18.8         |
| Azimuth Beamwidth (3 dB)                |                | degrees | 32.7° ± 2.6°                         | 30.2° ± 0.8° | 28.7° ± 2.2° | 24.4° ± 1.6° | 23.4° ± 1.5° |
| Elevation Beamwidth (3 dB)              |                | degrees | 7.8° ± 0.4°                          | 7.3° ± 0.2°  | 6.9° ± 0.5°  | 6° ± 0.2°    | 5.5° ± 0.3°  |
| Beam Center                             |                | degrees | ±30°                                 | ±28°         | ±25°         | ±24°         | ±23°         |
| Electrical Downtilt                     |                | degrees | 2-12°                                |              |              |              |              |
| Impedance                               |                | Ohms    | 50Ω                                  |              |              |              |              |
| VSWR (Return Loss)                      |                | ---     | 1.5:1 (-14 dB)                       |              |              |              |              |
| Passive Intermodulation                 |                | dBc     | -150 (3rd Order for 2x20 W Carriers) |              |              |              |              |
| Front-to-Back Ratio, Total Power, ± 30° |                | dB      | 21.1                                 | 22.9         | 23.6         | 23.4         | 21.8         |
| First Upper Side Lobe Suppression       |                | dB      | 17.5                                 | 18.9         | 18.8         | 16.1         | 17.6         |
| Maximum Effective Power Per Port        |                | Watts   | 250 W                                |              |              |              |              |
| Cross Polar Isolation                   |                | dB      | 26                                   |              |              |              |              |
| Interband Isolation                     |                | dB      | 26                                   |              |              |              |              |
| Beam Isolation                          |                | dB      | 13                                   |              |              |              |              |

Specifications follow BASTA guidelines.



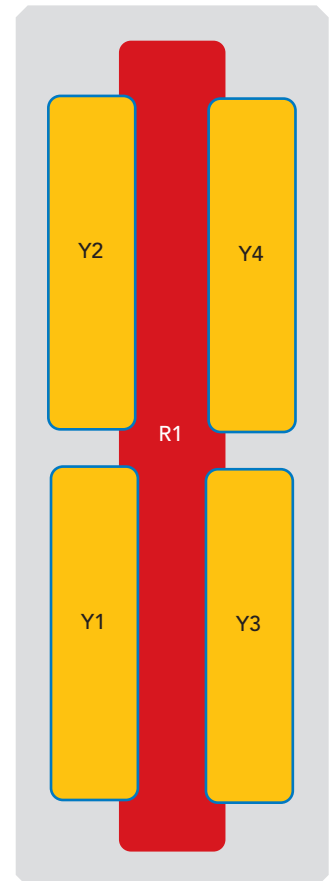
**APXVB34L26AB\_43-C-I20**  
APXVB34L26AB\_43-C-I20S

**BOTTOM VIEW - LABELING**



**ARRAY LAYOUT**

| ARRAY                                    | FREQUENCY     | CONNECTOR | CONNECTOR TYPE     | RET | AISG RET UID    |
|--|---------------|-----------|--------------------|-----|-----------------|
| <span style="color: red;">■</span> R1    | 698-960 MHz   | 1-2       | (2x) 4.3-10 Female | R1  | RFxxxxxxxxxx-R1 |
| <span style="color: yellow;">■</span> Y1 | 1710-2690 MHz | 3-4       | (2x) 4.3-10 Female | Y1  | RFxxxxxxxxxx-Y1 |
| <span style="color: yellow;">■</span> Y2 | 1710-2690 MHz | 5-6       | (2x) 4.3-10 Female | Y2  | RFxxxxxxxxxx-Y2 |
| <span style="color: yellow;">■</span> Y3 | 1710-2690 MHz | 7-8       | (2x) 4.3-10 Female | Y3  | RFxxxxxxxxxx-Y3 |
| <span style="color: yellow;">■</span> Y4 | 1710-2690 MHz | 9-10      | (2x) 4.3-10 Female | Y4  | RFxxxxxxxxxx-Y4 |



The illustration is not shown to scale.

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### APXVB34L26AB\_43-C-I20S

#### MECHANICAL SPECIFICATIONS

|  |                                       |   |
|--|---------------------------------------|---|
| Length                                     | mm (in)                               | 2690 (105.9)  |
| Width                                      | mm (in)                               | 350 (13.8)  |
| Depth                                      | mm (in)                               | 200 (7.9)   |
| Net Weight - Antenna Only                  | kg (lbs)                              | 39.5 (87.1)   |
| Wind Load<br>Rated at<br>150 km/h (93 mph) | Front                                 | N (lbf) 713 (160)   |
|  | Side                                  | N (lbf) 746 (168)   |
|  | Rear                                  | N (lbf) 827 (186)   |
| Survival Wind Speed / Rated Wind Speed     | km/h (mph)                            | 200 (150)   |
| Connector Type                             | --                                    | (10x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom<br>Site Sharing: (4x) AISG Connectors (2 Male, 2 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) 2940 x 445 x 295 (115.7 x 17.5 x 11.6)  |

#### 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        |

## APXVB34L26AB\_43-C-I20 APXVB34L26AB\_43-C-I20S

### ACCESSORIES

Accessories may be ordered separately unless otherwise indicated.

| ITEM   | MODEL NUMBER | WEIGHT           |
|--|--------------|------------------|
| Beam Tilt Mounting Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in)<br><i>Shipped with antenna</i> | APM50-B1     | 4.5 kg (9.9 lbs) |

### INSTALLATION

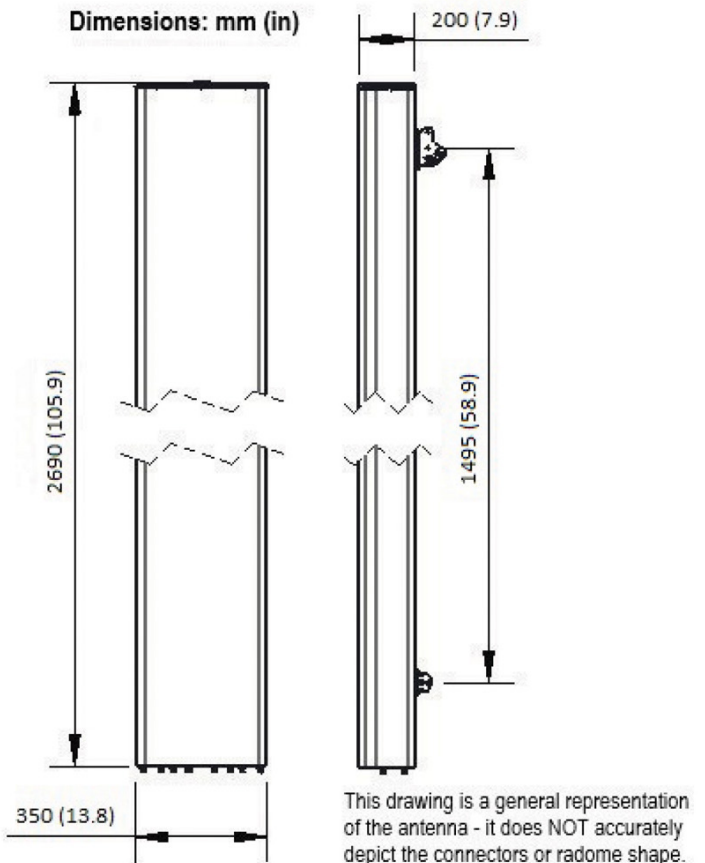
Please read all installation notes before installing product.



- 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](#)