# FFV4Q4-65B-R7-V2

## 20-port sector antenna, 4x 617-894, 8x 1695-2690 MHz 65° HPBW and 8x 2300-4200 MHz, Beamformer, 7x RET

- Includes 1x 4-Column Array for 2300-4200MHz and calibration port
- Q4 array uses M-LOC cluster connectors
- New aerodynamic endcaps for wind load optimization

## General Specifications

| | |
|---|---|
| **Antenna Type** | Sector and beamforming |
| **Band** | Multiband |
| **Calibration Connector Interface** | M-LOC |
| **Calibration Connector Quantity** | 1 |
| **Color** | Light Gray (RAL 7035) |
| **Grounding Type** | RF connector inner conductor and body grounded to reflector and mounting bracket |
| **Performance Note** | Outdoor usage |
| **Radome Material** | Fiberglass, UV resistant |
| **Reflector Material** | Aluminum |
| **RF Connector Interface** | 4.3-10 Female \| M-LOC |
| **RF Connector Location** | Bottom |
| **RF Connector Quantity, high band** | 8 |
| **RF Connector Quantity, mid band** | 8 |
| **RF Connector Quantity, low band** | 4 |
| **RF Connector Quantity, total** | 20 |

## Remote Electrical Tilt (RET) Information

| | |
|---|---|
| **RET Hardware** | CommRET v2 |
| **RET Interface** | 8-pin DIN Female \| 8-pin DIN Male |
| **RET Interface, quantity** | 1 female \| 1 male |
| **Input Voltage** | 10–30 Vdc |
| **Internal RET** | High band (1) \| Low band (2) \| Mid band (4) |
| **Power Consumption, active state, maximum** | 8 W |
| **Power Consumption, idle state, maximum** | 1 W |

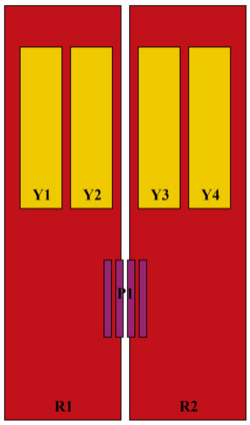
# FFV4Q4-65B-R7-V2

| | |
|---|---|
| **Protocol** | 3GPP/AISG 2.0 (Single RET) |

## Dimensions

| | |
|---|---|
| **Width** | 498 mm \| 19.606 in |
| **Depth** | 197 mm \| 7.756 in |
| **Length** | 2100 mm \| 82.677 in |
| **Net Weight, antenna only** | 41.2 kg \| 90.83 lb |

## Array Layout



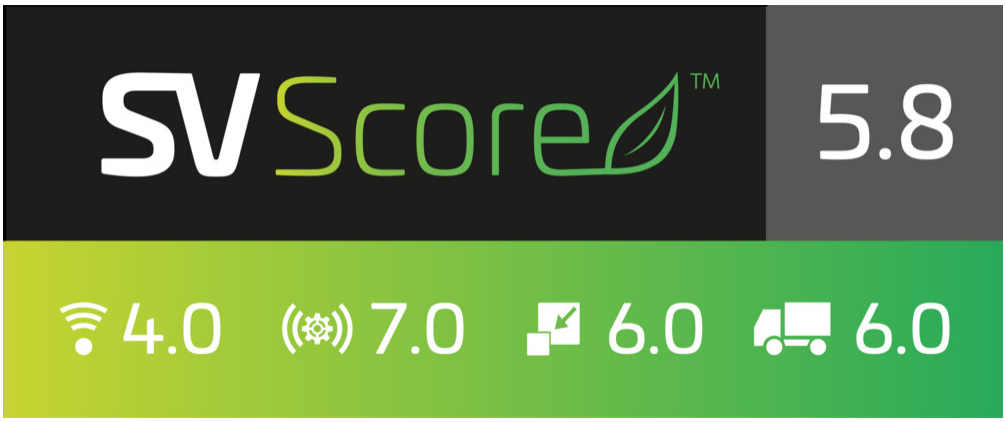

| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|---|---|---|---|---|---|
| R1 | 617-894 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxxxR1 |
| R2 | 617-894 | 3 - 4 | 2 | AISG1 | CPxxxxxxxxxxxxxxR2 |
| Y1 | 1695-2690 | 5 - 6 | 3 | AISG1 | CPxxxxxxxxxxxxxxY1 |
| Y2 | 1695-2690 | 7 - 8 | 4 | AISG1 | CPxxxxxxxxxxxxxxY2 |
| Y3 | 1695-2690 | 9 - 10 | 5 | AISG1 | CPxxxxxxxxxxxxxxY3 |
| Y4 | 1695-2690 | 11 - 12 | 6 | AISG1 | CPxxxxxxxxxxxxxxY4 |
| P1 | 2300-4200 | 13 - 20 | 7 | AISG1 | CPxxxxxxxxxxxxxxP1 |

(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration


## Logo Image

# FFV4Q4-65B-R7-V2




## Electrical Specifications

| | |
|---|---|
| **Impedance** | 50 ohm |
| **Operating Frequency Band** | 1695 – 2690 MHz \| 2300 – 4200 MHz \| 617 – 894 MHz |
| **Polarization** | ±45° |
| **Total Input Power, maximum** | 1,400 W @ 50 °C |

## Electrical Specifications

| | R1,R2 | R1,R2 | Y1,Y2,Y3,Y4 | Y1,Y2,Y3,Y4 | Y1,Y2,Y3,Y4 | P1 | P1 | P1 |
|---|---|---|---|---|---|---|---|---|
| **Frequency Band, MHz** | **617–698** | **698–894** | **1695–1920** | **1920–2200** | **2490–2690** | **2300–2690** | **3300–3800** | **3700–4200** |
| **RF Port** | 1-4 | 1-4 | 5-12 | 5-12 | 5-12 | 13-20 | 13-20 | 13-20 |
| **Gain, dBi** | 14.5 | 15 | 16.2 | 17.1 | 17.2 | 14.5 | 15.6 | 15.4 |
| **Beamwidth, Horizontal, degrees** | 66 | 56 | 65 | 60 | 57 | 81 | 63 | 63 |
| **Beamwidth, Vertical, degrees** | 11.8 | 10.1 | 6.7 | 6 | 5.1 | 9.4 | 6.7 | 6.3 |
| **Beam Tilt, degrees** | 2–14 | 2–14 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| **USLS (First Lobe), dB** | 18 | 17 | 16 | 18 | 19 | 16 | 18 | 16 |
| **Front-to-Back Ratio at 180°, dB** | 28 | 31 | 32 | 35 | 29 | 30 | 27 | 24 |
| **Front-to-Back Total Power at 180° ± 30°, dB** | 22 | 22 | 26 | 28 | 23 | 24 | 22 | 20 |
| **Coupling level, Amp, Antenna port to Cal port, dB** | | | | | | -26 | -26 | -26 |
| **Coupling level, max Amp Δ, Antenna port to Cal port, dB** | | | | | | ±2 | ±2 | ±2 |
| **Coupler, max Amp Δ, Antenna port to Cal port, dB** | | | | | | 0.9 | 0.9 | 0.9 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Coupler, max Phase Δ, Antenna port to Cal port, degrees** | | | | | | 7 | 7 | 7 |
| **CPR at Boresight, dB** | 19 | 19 | 19 | 22 | 17 | 15 | 15 | 13 |
| **CPR at Sector, dB** | 10 | 8 | 7 | 7 | 4 | 7 | 6 | 3 |
| **Isolation, Cross Polarization, dB** | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| **Isolation, Inter-band, dB** | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| **Isolation, Co-polarization, dB** | | | | | | 18 | 18 | 18 |
| **VSWR \| Return loss, dB** | 1.5 \| 14.0 | 1.5 \| 14.0 | 1.5 \| 14.0 | 1.5 \| 14.0 | 1.5 \| 14.0 | 1.5 \| 14.0 | 1.5 \| 14.0 | 1.5 \| 14.0 |
| **PIM, 3rd Order, 2 x 20 W, dBc** | -150 | -150 | -150 | -150 | -150 | -140 | -140 | -140 |
| **Input Power per Port at 50°C, maximum, watts** | 250 | 250 | 200 | 200 | 200 | 80 | 80 | 80 |

## Electrical Specifications, Broadcast 65°

| **Frequency Band, MHz** | **2300–2690** | **3300–3800** | **3700–4200** |
|---|---|---|---|
| **Gain, dBi** | 15.7 | 15.9 | 15.7 |
| **Beamwidth, Horizontal, degrees** | 65 | 65 | 65 |
| **Beamwidth, Horizontal at 10 dB, degrees** | 114 | 119 | 123 |
| **Beamwidth, Vertical, degrees** | 9.3 | 6.8 | 6.4 |
| **Front-to-Back Total Power at 180° ± 30°, dB** | 27 | 23 | 21 |
| **USLS (First Lobe), dB** | 18 | 17 | 16 |

## Electrical Specifications, Envelope Pattern

| **Frequency Band, MHz** | **2300–2690** | **3300–3800** | **3700–4200** |
|---|---|---|---|
| **Front-to-Back Total Power at 180° ± 30°, dB** | 28 | 26 | 23 |
| **USLS (First Lobe), dB** | 19 | 20 | 19 |

## Electrical Specifications, Service Beam

| **Frequency Band, MHz** | **2300–2690** | **3300–3800** | **3700–4200** |
|---|---|---|---|
| **Steered 0° Gain, dBi** | 19.1 | 20.4 | 20.3 |
| **Steered 0° Beamwidth, Horizontal, degrees** | 24 | 19 | 18 |
| **Steered 0° Front-to-Back Total Power at 180° ± 30°, dB** | 31 | 27 | 26 |

| | | | |
|---|---|---|---|
| **Steered 0° Horizontal Sidelobe, dB** | 14 | 13 | 12 |
| **Steered 30° Gain, dBi** | 17.9 | 18.7 | 18.2 |
| **Steered 30° Beamwidth, Horizontal, degrees** | 30 | 21 | 19 |
| **Steered 30° Front-to-Back Total Power at 180° ± 30°, dB** | 29 | 25 | 22 |

## Mechanical Specifications

| | |
|---|---|
| **Wind Loading @ Velocity, frontal** | 728.0 N @ 150 km/h (163.7 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, lateral** | 223.0 N @ 150 km/h (50.1 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, maximum** | 873.0 N @ 150 km/h (196.3 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, rear** | 501.0 N @ 150 km/h (112.6 lbf @ 150 km/h) |
| **Wind Speed, maximum** | 241 km/h (150 mph) |

## Packaging and Weights

| | |
|---|---|
| **Width, packed** | 565 mm \| 22.244 in |
| **Depth, packed** | 309 mm \| 12.165 in |
| **Length, packed** | 2287 mm \| 90.039 in |
| **Weight, gross** | 55.7 kg \| 122.797 lb |

## Regulatory Compliance/Certifications

| **Agency** | **Classification** |
|---|---|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

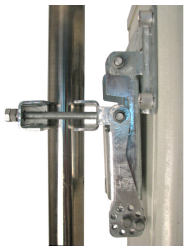
## Included Products

| | | |
|---|---|---|
| BSAMNT-4 | – | Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set. |

## * Footnotes

| | |
|---|---|
| **Performance Note** | Severe environmental conditions may degrade optimum performance |

# BSAMNT-4



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## Product Classification

| | |
|---|---|
| **Product Type** | Downtilt mounting kit |

## General Specifications

| | |
|---|---|
| **Application** | Outdoor |
| **Color** | Silver |

## Dimensions

| | |
|---|---|
| **Compatible Diameter, maximum** | 115 mm \| 4.528 in |
| **Compatible Diameter, minimum** | 60 mm \| 2.362 in |
| **Weight, net** | 6.5 kg \| 14.33 lb |

## Material Specifications

| | |
|---|---|
| **Material Type** | Galvanized steel |

## Packaging and Weights

| | |
|---|---|
| **Included** | Brackets \| Hardware |
| **Packaging quantity** | 1 |

## Regulatory Compliance/Certifications

| Agency | Classification |
|---|---|
| CHINA-ROHS | Below maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| REACH-SVHC | Compliant as per SVHC revision on www.andrew.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |