



# RFS E-Band Microwave Antennas

1ft And 2ft For Back-hauling And Front-hauling Applications



- **ETSI Class 3 and FCC Compliant**
  - Meets the most stringent standards in the industry
  - The 1ft & 2ft E-Band meets FCC standard
  - RF specifications validated by actual results
- **Survival windspeed of 320km/h (198mph) for the SB1 and 250km/h (156mph) for the SC2**
  - Ensures extreme stability of the link even in the case of high winds
  - Mechanical performances validated by actual results, including wind tunnel test in real conditions

## RFS Extends CompactLine® Easy Range With E-Band Antennas for 71-86 GHz

The new E-Band Microwave Antennas from Radio Frequency Systems (RFS), available in 1 and 2 foot models, provide the optimal combination of electrical and mechanical performance coupled with cost-effectiveness.

Like all RFS CompactLine antennas, these new additions are designed for ease-of-use in five key areas: network design, transport, deployment, installation and upgrade. The most compact design on the market, the E-band antennas have optimized packaging volumes and a low weight of 6kg (SB1) and 9kg (SC2) reducing zoning challenges and installation costs. They provide a very stable link for increased reliability in the field and support precise alignment, which is critical when gains are high and beamwidth is narrow.

RFS E-band antennas have been fully designed and tested to comply with ETSI Class 3 and FCC standards:

- SB1-W800Cyyy : ETSI Class 3
- SB1-W800Cyyy-FCC : ETSI Class 3 and FCC
- SC2-W800BYYY: ETSI Class 3 and FCC

Additionally, they meet RFS' rigorous quality standards and have been thoroughly tested for resistance to humidity, condensation, salt, vibration and wind. They feature survival wind speeds of 320km/h (SB1) and 250km/h (SC2).



- **The most compact and lightest 1ft and 2ft antennas on the market**
  - Lowers installation and shipping costs and eases zoning complexity
- **Ideal for front and backhaul applications in densely populated environments**
  - Increases bandwidth for high data capacity
- **Compact mounting system**
  - Simplifies installation time and efforts
- **Optimized packaging volumes**
  - Lowers transportation costs

### Ordering Information

Model Number	Size	Standard
SB1-W800Cyyy	1 ft	ETSI Class 3
SB1-W800Cyyy-FCC	1 ft	ETSI Class 3 / FCC
SC2-W800Byyy	2 ft	ETSI Class 3 / FCC

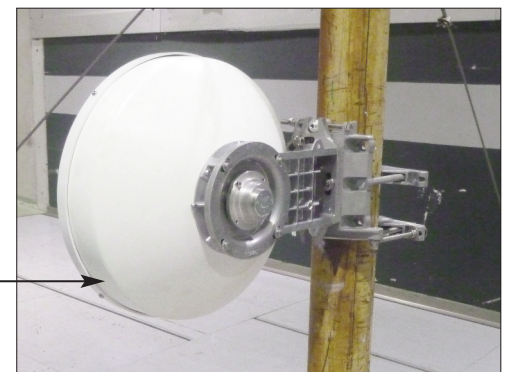
# RFS E-Band Microwave Antennas

## Product Specifications

Model Number	SB1-W800yyy	SB1-W800yyy-FCC	SC2-W800yyy
Frequency band	E-band (W800)		
Frequency range [GHz]	71-86		
Polarization:	vertical or horizontal	vertical or horizontal	vertical or horizontal
	–	–	–
Gain [dBi]:	Low	43.1	50
	Mid	44	50.5
	High	44.8	51
Half Power Beamwidth [°]	0.8	0.8	0.5
XPD [dB]	27		
Front to Back Ratio [dB]	63	63	68
ETSI Compliance	R7C3		
FCC Compliance [Cat]	–	FCC Part 101	FCC Part 101
Return Loss min [dB]	14		
VSWR	1.5		
Input flange	Customized Interfaces		
Overall diameter [mm (in)]	388 (15.3)	388 (15.3)	670 (26.4)
Overall depth (no mount) [mm (in)]	170 (6.7)	170 (6.7)	296 (11.7)
Net weight [kg (lb)]	6 (13)	6 (13)	9 (20)
Gross weight [kg (lb)]	8 (18)	8 (18)	11 (24)
Elevation Fine adjustment [°]	+/- 20		
Azimuth Fine adjustment [°]	+/- 15		
Polarization adjustment [°]	+/- 5		
Pipe diameter [mm (in)]	48-114 (1.9 - 4.5)		
Stationary use	ETSI EN 300 019-2-4 v2.2.2 class T4.1E, IEC class 4M5		
Storage	ETSI EN 300 019-2-1 v2.1.2 class T1.3		
Transportation	ETSI EN 300 019-2-2 v2.1.2 class T2.3		
Operational wind speed [m/s / km/h (mph)]	70 / 252 (156)	70 / 252 (156)	33 / 120 (75)
Survival wind speed [m/s / km/h (mph)]	89 / 320 (198)	89 / 320 (198)	70 / 252 (156)
Lightning protection	Grounding point		
Packing size [mm (in)]	460x390x300 (18x15x12)	460x390x300 (18x15x12)	680x680x330 (27x27x13)
Packing volume [m <sup>3</sup> (ft <sup>3</sup> )]	0.05 (1.8)	0.05 (1.8)	0.15 (5.3)
REACH, WEEE, RoHS (2002/95/CE)	Yes		



**New Compact S-Mount**  
Simplifies Installation



**Wind-Tunnel Tested**  
Ensures Durability