
Radio Specifications

This section provides the backhaul radio and antenna specifications. See the following sections for more information:

- ◆ "Antenna Specifications" on page 152
- ◆ "Radio Specifications" on page 158

C.1 Antenna Specifications

This section provides the antenna specifications. See the following sections for more information:

- ◆ "Bullet Line Station Antenna" on page 152
- ◆ "Rocket Recorder Antenna" on page 155
- ◆ "NanoStation Recorder/Line Station Antenna" on page 156

C.1.1 Bullet Line Station Antenna

The remote (line) station backhauls using the Ubiquiti Bullet radios support the following antennas:

- ◆ **6 dBi antenna** (65-0179) – This antenna is a UV stable, omnidirectional vented radome that can sustain extreme weather conditions such as heat, wind, and rain, and can be mounted to a mast, ceiling, or wall.
- ◆ **19 dBi directional antenna** (65-0177) – This antenna is a UV-resistant, directional flat-panel ABS plastic radome antenna with an aluminum back plate. It can be surface or pole mounted and adjusted 45 degrees up or down.



Figure C-1 19 dBi Antenna (65-0177)



Figure C-2 6 dBi Antenna (65-0179)

The supported line station antenna specifications are as follows:

Table C-1 Antenna Specifications, 6 dBi (65-0179)

Item	Description	Radiation Patterns
Model	T58060010006	<p style="text-align: center;">Vertical Radiation Pattern</p>
Frequency Range	5725 to 5850 MHz	
Bandwidth	125 MHz	
Gain	6 dBi	
Vertical Beamwidth	25°	
VSWR	-/± 1.5	
Impedance	50 Ohms	
Polarization	Vertical	
Maximum Power	100 Watts	<p style="text-align: center;">Horizontal Radiation Pattern</p>
Connector	N-Style Jack	
Height	10.6"	
Weight	0.5 lbs	
Horizontal Beamwidth	360°	
Rated Wind Velocity	135 mph	
Operating Temperature	-22°F to 158 °F -30 to 70 °C	

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Table C–2 Antenna Specifications, 13 dBi (65-0177)

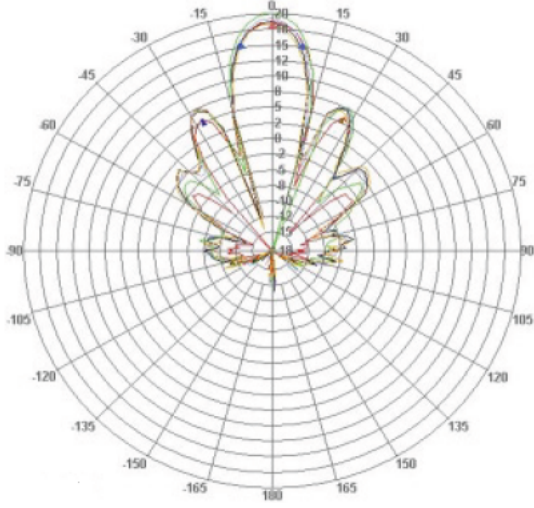
Parameter	Min	Typ	Max
Frequency Range	5150 MHz		5825 MHz
Gain		19 dBi	
Horizontal Beamwidth		16 Deg	
Vertical Beamwidth		16 Deg	
Front to Back	30 dB		
Cross Polarization	25 dB		
VSWR			
• 5150-5350MHz	2.0:1		
• 5470-5825MHz	1.5:1		
Impedance		50 OHM	
Input Power			100W
Operating Temperature	-40 °F -40 °C		158 °F 70 °C
Pole Size	1 in 25 mm		2.5 in 64 mm
Weight		17.6 oz 0.5 kg	
Dimension (L x W x Thick)	7.5 x 7.5 x 0.8 in 190 x 190 x 20 mm		
Bracket Tilt	45 Deg		
Radiation Pattern			

Table C–3 Antenna Wind Loading, 13 dBi (65-0177)

Parameter	Area	100 mph 161 kph	125 mph 201 kph
Wind Loading	56 sq in 0.04 sq m	14 lbs 6.4 kg	22 lbs 10 kg

C.1.2 Rocket Recorder Antenna

The recorder station backhaul using the Ubiquiti Rocket radio supports a 13 dBi antenna. This antenna is a 2x2 Dual Polarity MIMO Omnidirectional Antenna that provides 360 degree coverage.



Figure C–3 13 dBi Antenna (65-0178)

The supported recorder antenna specifications are as follows:

Table C–4 Antenna Specifications, 13 dBi (65-0178)

Item	Description	Radiation Patterns
Frequency Range	5.45 to 5.85 GHz	<p><i>Horizontal Elevation</i></p>
Gain	13 dBi	
Elevation Beamwidth	7 deg	
Max VSWR	1.5: 1	
Downtilt	2 deg	
Dimensions L x W x H	6.2 x 3.8 x 32.8 in 158 x 98 x 834 mm	
Weight (including pole mount)	1 lb 13 oz 820 g	
Wind Survivability	125 mph 201 kph	

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Table C-4 Antenna Specifications, 13 dBi (65-0178) (cont.)

Item	Description	Radiation Patterns
Wind Loading	10 lb @ 100 mph 4.5 kg @ 161 kph	<p><i>Horizontal Azimuth</i></p>
Polarization	Dual Linear	
Cross-pol Isolation	25 Db min	
ETSI Specification	EN 302 326 DN2	
Mounting	Universal pole mount	
<p><i>Vertical Azimuth</i></p>		<p><i>Vertical Elevation</i></p>

C.1.3 NanoStation Recorder/Line Station Antenna

The recorder or line station backhaul using the Ubiquiti NanoStation M5 radios do not use an external antenna; the NanoStation M5 has an integrated 14 dBi dual-polarity antenna.

The NanoStation integrated antenna specifications are as follows:

Table C-5 NanoStation Integrated Antenna Specifications

Item	Description	Radiation Patterns	
Model	NSM5/+locoM5 integrated		
Frequency Range	5745 to 5825 MHz (US) 5170 to 5875 MHz (INTL)		
Cross Pol Isolation	20 dB Minimum		
Gain	13 dBi		
Beamwidth	45° (H-pol) 45° (V-pol) 45° (Elevation)		
Max VSWR	1.4:1		
Polarization	Dual Linear		
Maximum Power	5.5 Watts		
Maximum Power	5.5 Watts		
Connector	N-Style Jack		
Height	10.6"		
Weight	0.5 lbs		
Horizontal Beamwidth	360°		
Rated Wind Velocity	135 mph		
Operating Temperature	-22°F to 158 °F -30 to 70 °C		