



The Barracuda UHF VFH69383B22JU multiport/multiband antenna provides an excellent solution for Public Safety, Transportation and Aftermarket Fleet applications. Configured for UHF band operation, two-port MIMO operation over the 3G/4G/ISM/CBRS bands and two-port MIMO operation over the low/high frequency Wi-Fi bands. An additional sixth port provides an active antenna for enabling GNSS global navigation services.

FEATURES AND BENEFITS

- One single-hole mount/fixing- reduces vehicle damage and the cost of installation
- Attractive IP67 low profile aerodynamic housing
- Multiband/MIMO operation with GNSS navigation

APPLICATIONS

- FirstNet/Public Safety
- Transportation
- Aftermarket fleet
- 5G ready
- Rugged LTE Gateways
- Others

ELECTRICAL SPECIFICATIONS							
Antenna Model	VFH69383B22JU-518J						
Number of Ports	6						
Port Configuration	1x- UHF	2x- 3G/4G/ISM/CBRS				2x- Wi-Fi	
Operating Frequency (MHz)	380- 520	698-806	824-894	880-960	1690-3800	2400-2500	4900-6000
Peak Gain* – Avg (dBi)	0.8	0.0	0.2	0.7	3.9	2.5	6.5
Peak Gain* – Max (dBi)	2.3	1.5	1.5	2.1	7.4	3.5	7.6
VSWR – Avg	1.6:1	2.0:1	1.9:1	2.0:1	1.5:1	1.2:1	1.2:1
VSWR – Max	2.5:1	2.5:1				2.0:1	
Max Power - Ambient 25°C (W)	60	30				10	
Isolation LTE 1 to LTE 2 (dB)	-	-15	-17	-17	-19	-	-
Isolation WiFi 1 to LTE1 (dB)	-	-	-	-	-16	-16	-34
Isolation WiFi 1 to LTE 2 (dB)	-	-	-	-	-30	-30	-40
Isolation WiFi 2 to LTE 1 (dB)	-	-	-	-	-30	-30	-43
Isolation WiFi 2 to LTE 2 (dB)	-	-	-	-	-15	-15	-37
Isolation WiFi 1 to WiFi 2 (dB)	-	-	-	-	-	-32	-38
Isolation UHF to LTE 1 (dB)	-22	-	-	-	-	-	-
Isolation UHF to LTE 2 (dB)	-20	-	-	-	-	-	-
Isolation UHF to WiFi 1 (dB)	-47	-	-	-	-	-	-
Isolation UHF to WiFi 2 (dB)	-45	-	-	-	-	-	-
Azimuth Plane 3 dB Beamwidth	360°, Omnidirectional						
Nominal Impedance (Ohms)	50						
Polarization	Vertical						

MECHANICAL SPECIFICATIONS	
Dimensions – L x W x H – mm (inches)	179 x 63 x 48 (7.04 x 2.48 x 1.69)
Weight – kg (lbs.)	0.72 (1.6)
Cable Type and Length – cm (ft.)	LMR-100 (Black), 30 (1.0) / LMR-195 (Black), 488 (16.0)
Connector	SMA, Male
Mounting	P-Mount
Radome Material	PC, UL94-V0, UV Stable
Baseplate Material	Aluminum

ENVIRONMENTAL SPECIFICATIONS	
Operating Environment	Outdoor Vehicle
Operating Temperature – °C (°F)	-30 to +70°C (-22 to +158°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

*Measures on a 1 ft circular ground plane

**Measured on a 1 ft circular ground plane with 17ft of coaxial cable

GNSS ANTENNA SPECIFICATIONS

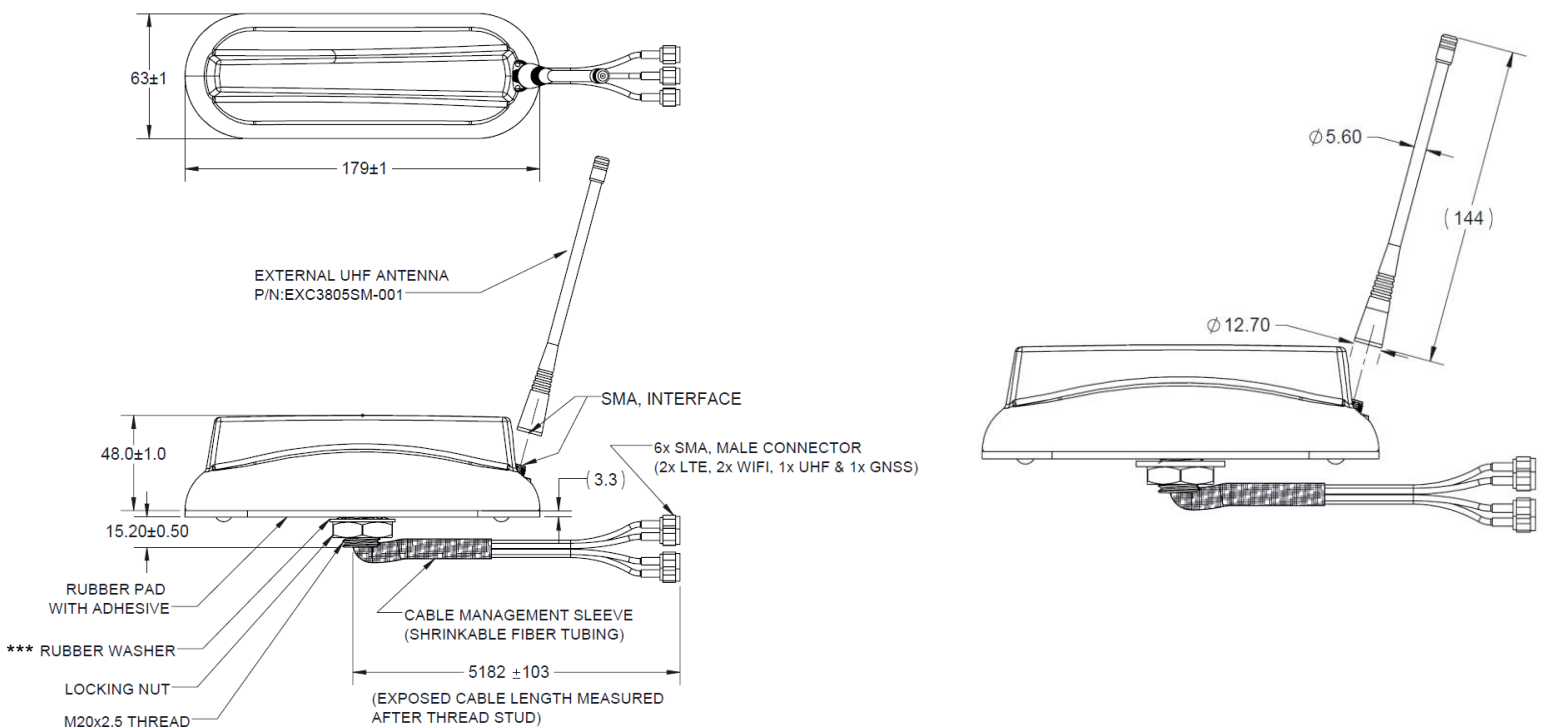
Frequency of Operation (MHz)	1559 - 1606		
Band	BEIDOU	GPS	GLONASS
Frequency Band (MHz)	1559.052 - 1563.144	1574.42 - 1576.42	1598.0625 - 1605.89
Absolute Gain (dBi)	3	3	3
LNA Gain, Typ. @ room temp. (dBi)	26	27	26
Noise Figure @ room temp., Max (dB)	3.0	2.5	2.8
Max VSWR @ room temp.	2:1	2:1	2:1
Polarization	RHCP		
Nominal Impedance (Ohms)	50		
DC Voltage (Vdc)	3.3		
Operating Supply Voltage (Vdc)	2.5 - 7.0		
Current Consumption, Max @ room temp (mA)	20		
Out-of-band Signal Rejection Min @ room temp (dBc)	80 (@1-1525 MHz)	80 (@1675-2000 MHz)	70 (@2000-3000 MHz)
Input Max Power (dBm)	-30		
Cable Type	RG174		

CONFIGURATION

PART NUMBER	CABLE LENGTH	CONNECTOR - LTE PORTS	CONNECTOR - WIFI PORTS	CONNECTOR- UHF PORT	CONNECTOR - GNSS PORT
VFH69383B22JU-518J	5.18 m (17.0 ft.)	SMA- male	SMA- male	SMA- male	SMA- male
VFH69383B22JU-518M	5.18 m (17.0 ft.)	SMA- male	SMA- male	QMA- male	SMA- male

PACKAGING INFORMATION

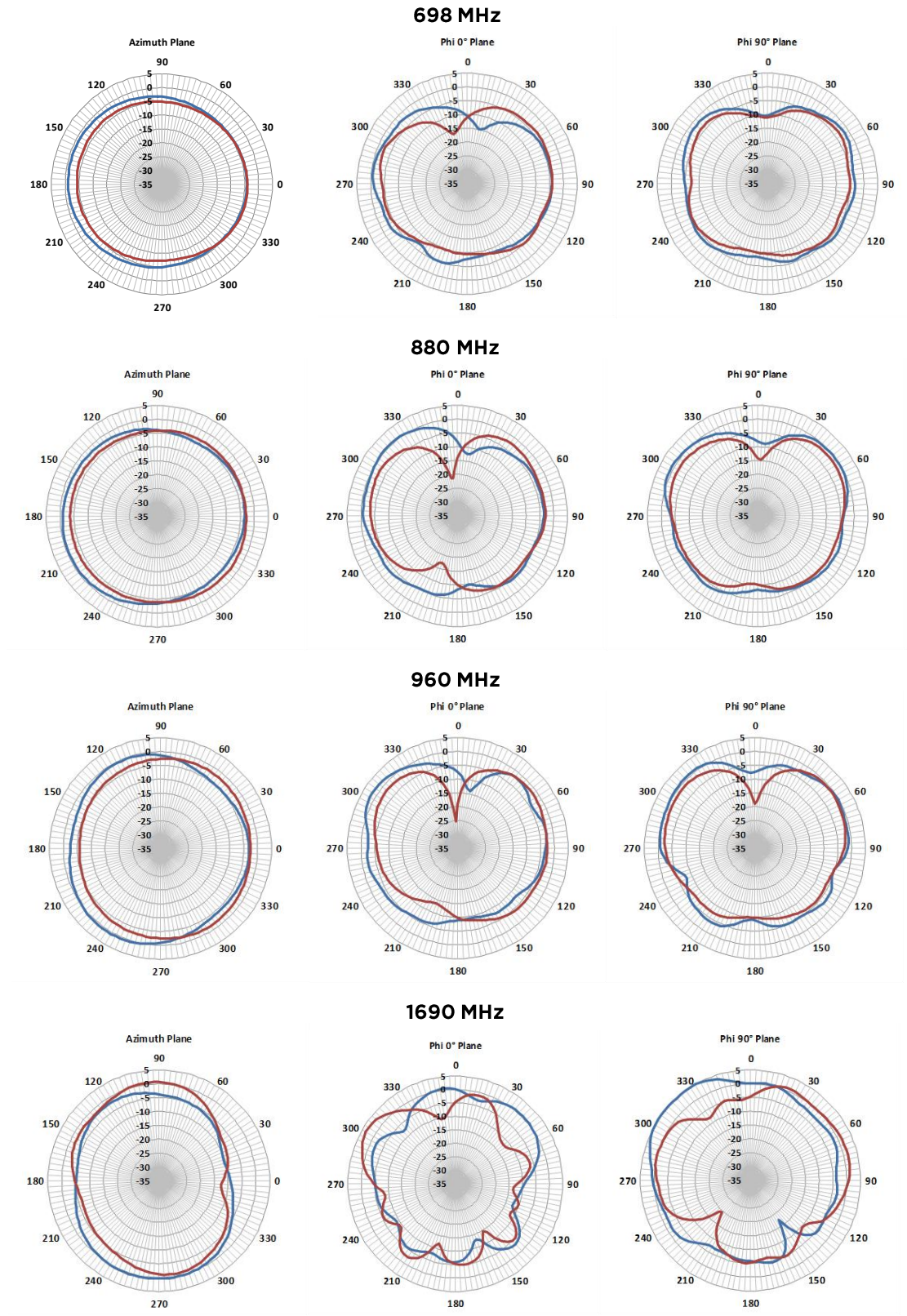
PACKAGED DIMENSIONS	CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	8	192	240
Height – mm (in.)	135 (5.31)	295 (11.6)	1350 (53.15)	1650 (64.96)
Length – mm (in.)	245 (9.65)	520 (20.5)	1200 (47.24)	1200 (47.24)
Width – mm (in.)	120 (47.2)	260 (10.2)	800 (31.5)	800 (31.5)
Shipping Weight – kg (lb.)	0.85 (1.9)	7.5 (16)	198 (436)	245 (540)



*** The rubber washer is required to achieve optimal performance for UHF.

RADIATION PATTERNS - LTE ANTENNAS

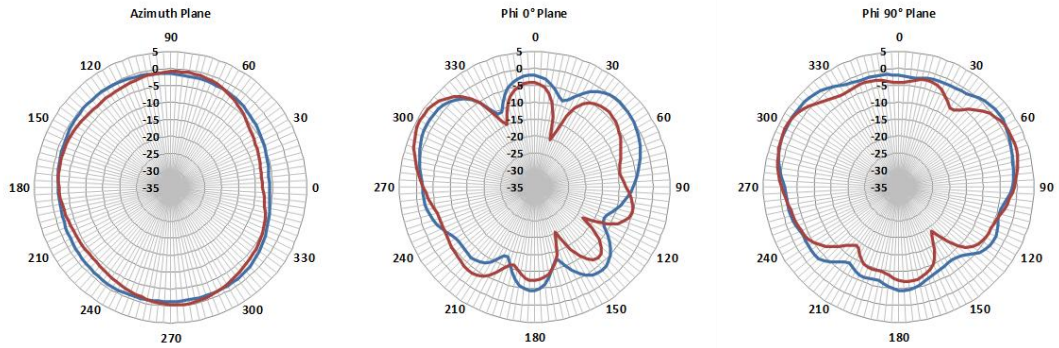
— LTE 1 — LTE 2



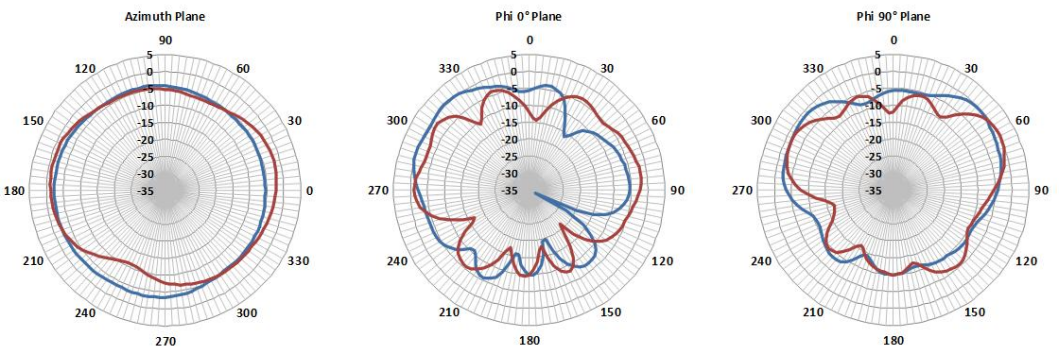
RADIATION PATTERNS - LTE ANTENNAS

— LTE 1 — LTE 2

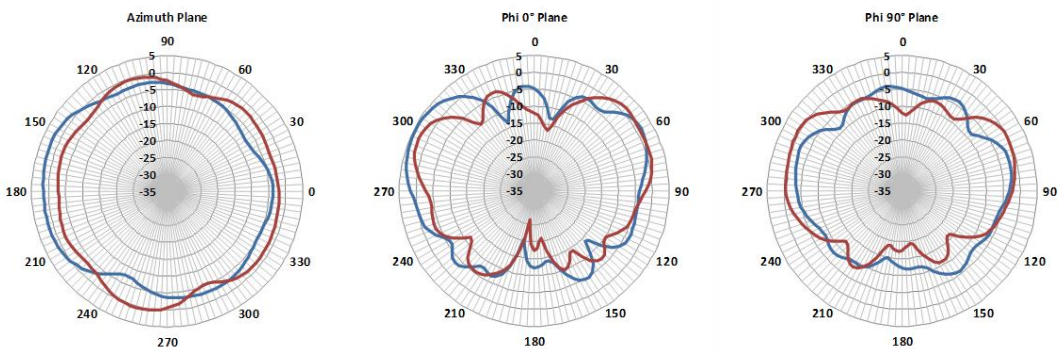
1850 MHz



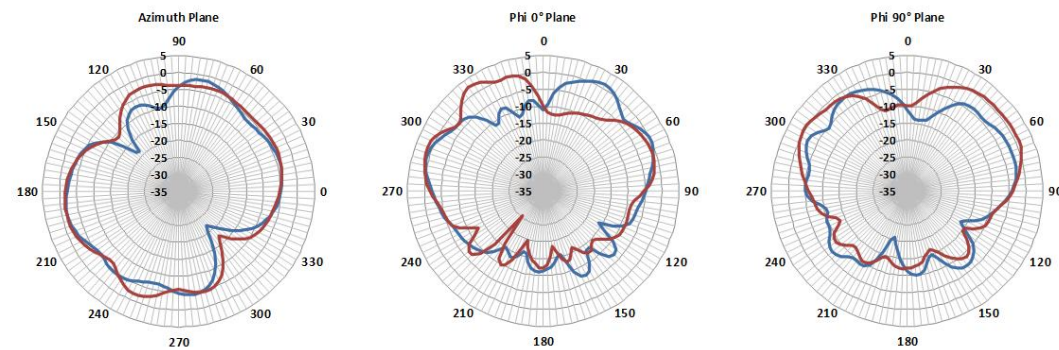
2170 MHz



2700 MHz

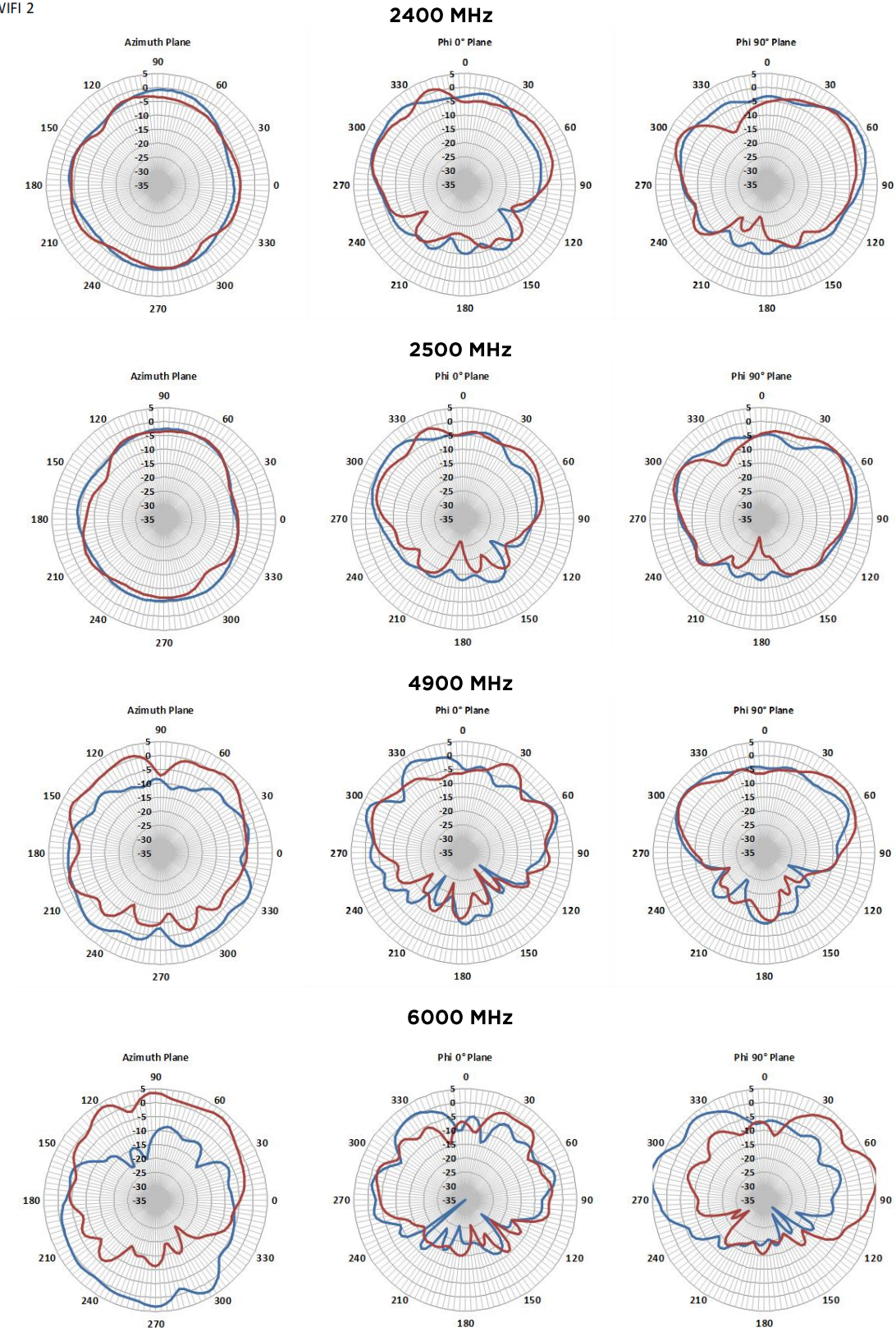


3800 MHz

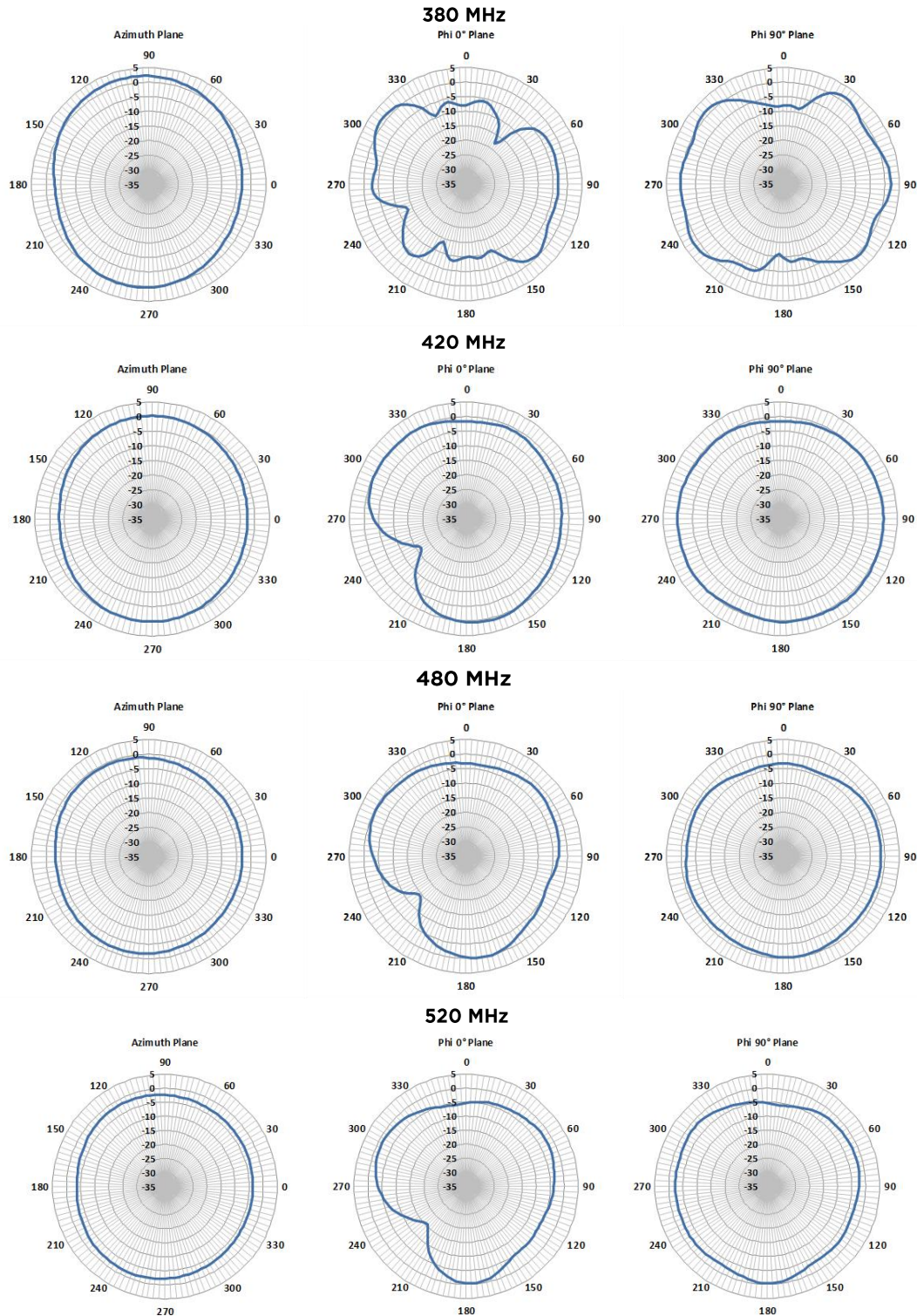


RADIATION PATTERNS - WI-FI ANTENNAS

— WIFI 1 — WIFI 2



RADIATION PATTERNS - UHF ANTENNA



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