

CONNECTING COMMUNITIES THROUGH
WIRELESS SOLUTIONS



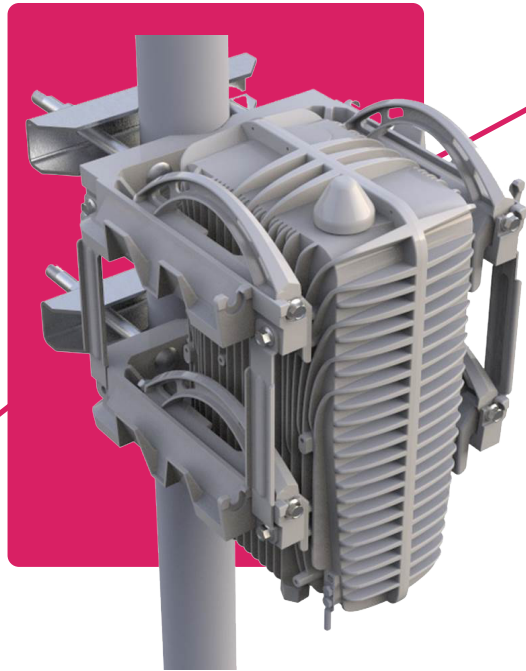
FW-600

FW-600 LAA



DUAL BAND

FW-600 LAA



SPECTRAL EFFICIENCY, GREATER FLEXIBILITY

The FW-600 is an ultra-high capacity, all integrated multicarrier LTE base station system designed as a response to today's broadband connectivity needs in rural and dense suburban markets. By operating across two different frequency bands, the FW-600 LAA system offers carrier redundancy to users looking for more spectrum.

Using three FW-600 LAA units to pair with BLiNQ's dual band multi-beam antenna, the FW-600 LAA system provides capacity enhancements and focused coverage with high user count that can easily match or out-perform most mMIMO commercial solutions.



Ultra-High Capacity



Ease of Deployment



**CBRS Category B
Certified**



Unique Dual Band Design



THE FW-600 B48/46 DUAL BAND ARCHITECTURE FEATURES:

- 2 sectors with up to 6 carriers* per unit in DL across B48 and B46. Each sector contains 3 carrier cells.
- Carriers can be split in multiple configurations* across B48 and B46 eg. 2 Carriers B48 + 4 Carriers B46 or 4 Carriers B48 + 2 Carriers B46
- Carrier aggregation is supported in both contiguous and non-contiguous fashion covering the entire band without IBW window restrictions.

eNodeB HIGHLIGHTS

- Delivers close to 1 Gbps Aggregate Throughput per eNodeB
- CBRS Category B certified
- Supports multiple TDD profiles, including TDD Configs 1-7 & 2-7
- Supports Uplink and Downlink (up to 3CC*) Carrier Aggregation
- Supports modulations of 256 QAM* in Downlink and 64 QAM in Uplink
- When paired with BLiNQ's dual band multi-beam antenna, provides system capacity of 2.7 Gbps

*Roadmap item



FW-600 LAA

SPECIFICATIONS



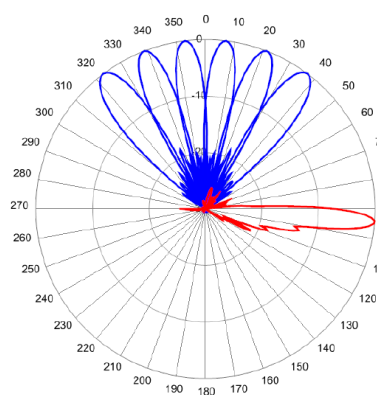
FW6-B48-46-NA		
MECHANICAL		
Dimensions (L x W x D)	19.4" x 12" x 8.4" (492 mm x 304 mm x 160 mm)	
Survival Wind Speed	Up to 124 mph (200 km/hour)	
Weight	55.1 lbs. (25.0 Kg)	
Bracket Weight	33.1 lbs. (15.0 Kg) (Bracket for 3 units)	
Operational Temperature	-40°F to 140°F (-40°C to 60°C)	
Lightning Protection	DC Ground	
RADIO & MBA SYSTEM SPECIFICATIONS		
Frequency Band	3.55-3.70 GHz (LTE Band 48 - CBRS) 5.15-5.25 GHz (UNII-1) and 5.725-5.85 GHz (UNII-3)	
Transmit Power (Max.)	B48: 33 dBm/antenna port + 3dB (MIMO) B46 (UNII-1 and UNII-3): 23 dBm/antenna port + 3dB (MIMO)	
EIRP (Max.)	B48: 50 dBm/antenna port + 3dB (MIMO) B46 (UNII-1 and UNII-3): 45 dBm/antenna port + 3dB (MIMO)	
Channel Bandwidths	10, 20 MHz	
MIMO	12TX x 12RX per FW-600 unit	
LTE Compliance	3GPP Release 10 (SW upgrade to Release 13)	
PERFORMANCE AND ATTRIBUTES		
	1 x FW-600	3 x FW-600 with MBA12F-HJ5AA antenna
Number of UEs Supported	Up to 192 UEs	Up to 576 UEs
Carrier Aggregation	Supports contiguous and non-contiguous 2CC and 3CC*, covering full CBRS band (150 MHz)	
Throughput DL TDD Config 2-7 (default)	6 Carriers x 140 Mbps* (up to 840 Mbps)	18 Carriers x 140 Mbps* (Up to 2.5 Gbps)
Throughput UL TDD Config 2-7 (default)	4 Carriers x 12.5 Mbps (Up to 50 Mbps)	12 Carriers x 12.5 Mbps (Up to 150 Mbps)
Operating Mode	TD-LTE	
Power Consumption	350 W maximum	1050 W maximum
Power	48 VDC	
Connectivity	1 x Copper 1000BaseT 1 x SFP 1 x PPS TNC Connector 1 x AISG/RET Control Port 4 x 2.2-5 RF Ports 8 x NEX10 RF Ports	3 x Copper 1000BaseT 3 x SFP 3 x PPS TNC Connectors 3 x AISG/RET Control Ports 12 x 2.2-5 RF Ports 24 x NEX10 RF Ports
Synchronization	Integral GPS antenna (GPS, GLONASS, BeiDou)	
Citizens Broadband Radio Service (CBRS)	CBSD Category B	
OPERATIONS, ADMINISTRATION & MAINTENANCE (OAM)		
Configuration	WebUI, CLI and EMS	
EMS Integration	RESTCONF	
OAM Protocols	RESTCONF, HTTPS, SSH, SNMPv2c	

*Roadmap item

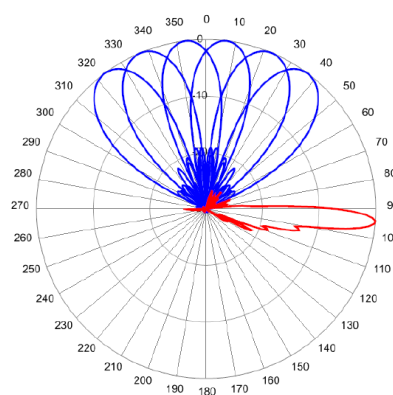
FW-600 LAA

PROPOSED DEPLOYMENT CONFIGURATIONS

- BLiNQ recommends pairing the FW-600 LAA base station unit(s) with the wideband FW6-MBA12F-HJ5AA antenna
- 3 x FW-600 LAA units with 1 x FW6-MBA12F-HJ5AA antenna

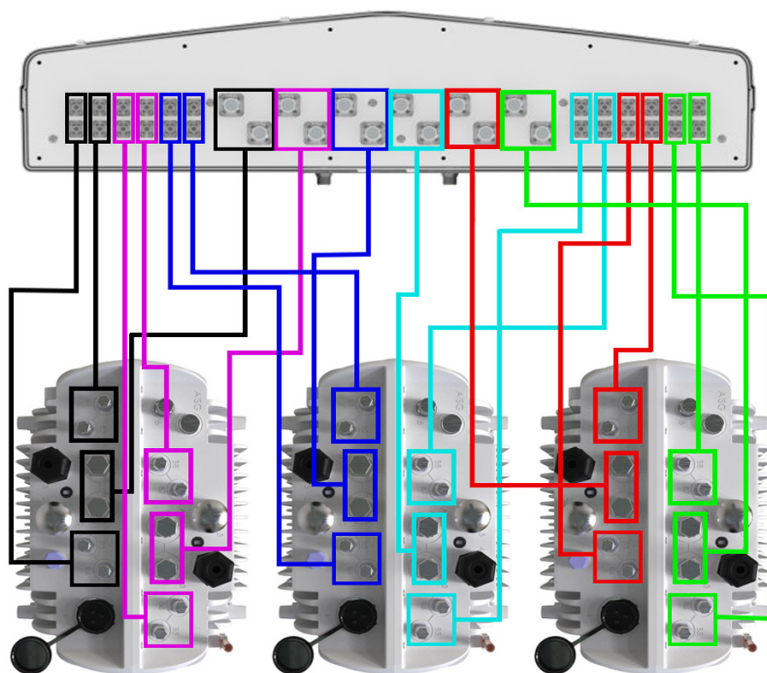
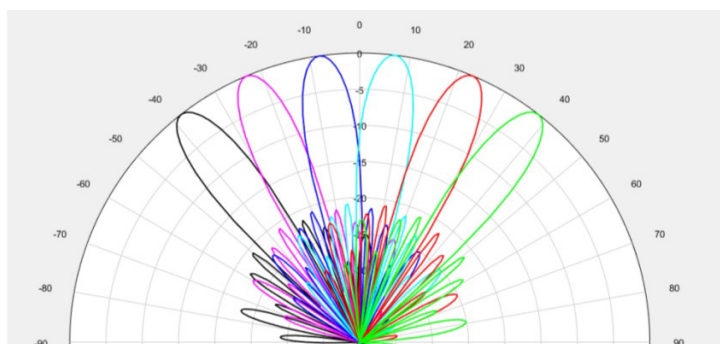


3600 MHz Azimuth / Elevation 4°



5538 MHz Azimuth / Elevation 4°

One FW6-MBA12F-HJ5AA antenna can be connected to three FW-600 LAA units, bringing the total capacity close to 2.7 Gbps.



NOTE: Shown for RF cabling/connectivity purposes.
Antenna pattern does not show all frequency lobes.

FW-600 LAA

ANTENNA SPECIFICATIONS



FW6-MBA12F-HJ5AA			
ELECTRICAL			
	12 x Ports which cover the full range from 3400-3800 MHz	12 x Ports which cover the full range from 5150 - 5300 MHz	12 x Ports which cover the full range from 5700 - 5925 MHz
Frequency Range	3400-3800 MHz	5150-5300 MHz	5750-5925 MHz
Gain Peak	24.6 dBi	21.9 dBi	22.1 dBi
Gain Average	23.9 dBi	21.3 dBi	21.5 dBi
Azimuth Beamwidth (-3 dB)	9.0°	17.0°	16.9°
Azimuth Beam Crossover	-10.5 dB	-10.5 dB	-10.5 dB
Elevation Beamwidth (-3 dB)	5.4°	5.6°	5.3°
Electrical Downtilt	4°	4°	4°
Elavation Sidelobes (1st Upper)	< -18 dB	< -18 dB	< -18 dB
Front-To-Back Ratio @ 180°	> 30 dB	> 30 dB	> 30 dB
Cross-Polar Discrimination at Peak	> 18 dB	> 18 dB	> 18 dB
Cross-Polar Isolation	> 25 dB	> 25 dB	> 25 dB
Co-Pol Isolation adjacent beams (worst case)	> 20 dB	> 18 dB	> 18 dB
Co-Pol Isolation non-adjacent beams (worst case)	> 15 dB	> 14 dB	> 14 dB
Cross-Polar Port-To-Port Isolation	> 25 dB	> 25 dB	> 25 dB
Voltage Standing Wave Ratio (VSWR)	<1.5:1	<1.5:1	<1.5:1
Passive Intermodulation (2 x 20W)	≤-140 dBc	NA	NA
Input Power per Port (CW)	100 watts	50 watts	50 watts
Polarization	+/- 45°	+/- 45°	+/- 45°
Input Impedance	50 Ohms	50 Ohms	50 Ohms
Lightning Protection	DC Gnd	DC Gnd	DC Gnd
MECHANICAL			
Dimensions (LxWxD)	58.7" x 33.8" x 7.7" (1490 mm x 858 mm x 195 mm)		
Survival Wind Speed	Up to 150 mph (240 km/hr)		
Front Wind Load	423 lbs (1883 N) @ 100 mph (161 kph)		
Side Wind Load	114 lbs (506 N) @ 100 mph (161 kph)		
Equivalent Flat Plate Area	16.5 ft² (1.5 m²)		
Weight	97.0 lbs (44.0 kg)		
Connectors	12 x 4.3-10 female & 24 x NEX10 female		
Mounting Pole	2" to 5" (5 cm to 12 cm)		



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