

Antenna Solutions for Efficient Spectrum Transition

Use 600 MHz and CBRS/C-band spectrum to **increase LTE network capacity and performance**

600 MHz solutions maximize functionality, flexibility and performance

Since Amphenol first offered 600 MHz solutions in 2016, we've continued to evolve our portfolio to meet mobile operators' needs. With over 100k 600 MHz units sold, we offer multiband base station antennas that cover up to three broadband frequency ranges in a single antenna:

- 617–894 MHz
- 1695–2690 MHz
- 3300-4200 MHz

These antennas provide important features that help mobile operators efficiently transition their networks to take advantage of new spectrum:

- 8, 12, and even 20-port models are available to **maximize antenna functionality**
- The mid-band ports are not diplexed to **maximize flexibility in spectrum usage**
- The mid-band columns are horizontally arrayed, not vertically stacked, to **maximize gain for a given length**
- Shorter, 4 ft versions of our popular 8 and 12-port antenna models are available to help operators **address zoning challenges**

In 2022, we built on the success of our compact 600 MHz antennas, with slimmer versions of our 8 and 12-port antennas that are less than 20 inches wide. These slimmer antennas further reduced antenna weight and windloading, while continuing to provide maximum flexibility in spectrum usage. They were the first of many slim 600 MHz antennas.

CBRS/C-band integration eliminates the need for additional antennas

In 2023, we integrated CBRS/C-band arrays into our broadband antennas so operators can use this newly available spectrum without increasing antenna counts. Our consolidated approach to spectrum support reduces operating expenses as well as weight and windloading on the tower.

The CBRS/C-band arrays will consist of two or four dual-polarized columns to allow 4-way or 8T8R beamforming. Amphenol is one of the primary 8T8R solution vendors in the US and will leverage that experience in the new frequency ranges.



Exclusive Features and Benefits

Amphenol can help mobile operators evolve their networks

- Full 617–894, 1695–2690, and 3300-4200 MHz coverage
 - Maximizes spectrum usage flexibility in a single antenna
- 12-port and 20-port antenna models with horizontally arrayed columns
 - Reduces antenna count without compromising gain
- Field-replaceable (integrated) AISG remote electrical tilt (RET) platform
 - Reduces environmental exposure and ensures long-lasting quality
- Multiple lengths of 8 and 12-port antenna models
 - Allows easy swap-out of legacy antennas in areas with difficult zoning requirements
 - 12-port models will have MRET to ease installation cabling
- CBRS/C-band integration ongoing
 - Further increases spectrum usage flexibility without increasing antenna counts
 - Includes MRET to ease installation cabling
- 45° hex-port antennas available
 - Allows for further site optimization

Consolidation of new frequencies into existing antennas will eliminate the need to add additional antennas onto already crowded network towers.

Product Specifications Click the underlined model numbers below to access the datasheet.

Base Station Antennas

Model Number 4.3-10 Interface		Frequency Range MHz	Gain dBi	Horizontal Beamwidth, deg	Tilt Range degrees	Length mm (in)
APXVA13X_43-C-A20	ONLY 12" WIDE	Low 617-894	13.1	68°	5-18°	1380 (54.3)
APXVAALL12N_43-U-NA20	Low	617-894	13.4	67°	2-12°	1219 (48)
	High	1695-2690	15.9	67°		
APXVAALL18M-U-J20	Low	617-894	14.7	67°	2-12°	1829 (72)
	High	1695-2690	17.5	61°		
APXVAALL24M-U-J20	Low	617-894	16.0	67°	2-12°	2438 (96)
	High	1695-2690	17.8	61°		
APXVAA4L12N_43-U-NA20	Low	617-894	13.4	67°	2-12°	1219 (48)
	High	1695-2690	15.5	67°		
APXVAA4L18N_43-U-NA20	Low	617-894	14.6	67°	2-12°	1829 (72)
	High	1695-2690	17.5	61°		
APXVAA4L24N_43-U-NA20	Low	617-894	15.5	67°	2-12°	2438 (96)
	High	1695-2690	17.8	61°		
APXVAA4L9TY24-U-J20	Low	617-894	15.0	67°	2-12°	2438 (96)
	Mid	1695-2690	17.8	61°		
	High	3300-4200	14.0	90°		
APXV4ALL24-U-J20	Low	617-894	17.6	45°	2-12°	2438 (96)
	High	1695-2690	19.1	45°		
APXVAA24X_43-U-A20	Low	617-894	15.5	65°	2-12°	2438 (96)
APXVAA18X_43-U-A20	Low	617-894	14.0	65°	2-12°	1829 (72)
APXVAR18_43-C-NA20	Low	617-746	14.4	65°	5-19°	1726 (68)
	High	1695-2200	17.6	67°	2-12°	

