



CBRS & C-BAND ANTENNAS

Private & Public Cellular Networks

CBRS & 5G C-BAND

The Citizen's Broadband Radio Service (CBRS) was originally opened for use in the 3.55 to 3.7 GHz range by the FCC in 2015. Additional frequencies, commonly known as C-Band, were later opened up for use in the 3.3-4.2 GHz bands. These ranges of spectrum enable system operators to design 5G or LTE networks that are fully self-contained and free of the requirement to operate through a carrier's network. The goal is to bring the do-it-yourself simplicity of Wi-Fi to long-range and low-latency LTE applications for systems designers.

Our range of CBRS-ready antennas cover a wide aspect of needs in the CBRS space including outdoor sector coverage, in-building access, mobile vehicle connectivity, and terminal mount & internal antennas for mobile and smart devices.



CBRS Use Cases



The applications for CBRS are extensive:










- Self-contained intranet that can blanket wide indoor and outdoor areas
- Monitoring systems and sensors for industrial applications
- On-site asset tracking

All offering the convenience and range of LTE without the cost of data plans and carrier subscriptions.

EMBEDDED ANTENNAS









For integration in IoT or smaller OEM devices, our line of embedded antennas can provide connectivity across the broad spectrum of cellular frequencies, including CBRS. Many are also customizable with different connector and cable lengths available.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	EFFICIENCY @ 2550-3700 MHZ (%)	CABLE LENGTH (MM)	CONNECTOR	COLOR
	2108784-x	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-6000	<2.8:1	>55%	-	Solder	Orange
	2108823-1	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-7125	<2.8:1	>70%	-	Solder	-

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	EFFICIENCY @ 2550-3700 MHZ (%)	CABLE LENGTH (MM)	CONNECTOR	COLOR
	2195851-1	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-7125	<2.7:1	>70%	-	Solder	Orange
	2195852-1	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-5875	<2.7:1	>70%	-	Solder	Orange
	2195846-1	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-7125	<2.6:1	>60%	50, 100, 150, or 200	U.FL, MHF4L	Orange
	2108921-2	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-7125	<2.7:1	>70%	50, 100, 150, or 200	U.FL, MHF4L	Orange
	2108948-x	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-7125	<3.0:1	>70%	-	Solder	Orange
	ANT-5GMFPC1-UFL-100	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	2300-5000	<3.2:1	>66%	100	U.FL	Black
	ANT-LPC-FPC-xx	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-3800	<8.2:1	>70%	50, 100 or 150	U.FL	Black
	ANT-LPL-FPC-100	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-3800	<4.6:1	>59%	100	U.FL	White
	ANT-5GW-FPC-xx	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5000	<4.7:1	>85%	50, 100, 150, or 200	U.FL, MHF4L	Black
	ANT-LTE-RPC-UFL	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-3800	<2.5:1	>57%	100	U.FL, None	Black






TERMINAL MOUNT ANTENNAS

For mounting on the outside of an IoT or OEM device. Our broad range of terminal mount antennas provides multiple options across the CBRS and C-Band frequency ranges.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	EFFICIENCY @	CONNECTOR	COLOR
						2550-3700 MHZ (%)		
	ANT-LTE-MON-SMA-x	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-3800	<6.1:1	>70%	SMA	Black
	ANT-5GMWP1-SMA	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	3550-4990	<2.2:1	>75%	SMA	Black
	ANT-5GMWS1-SMA	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	3550-4990	<3.4:1	>70%	SMA	Black
	2195889-x	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5925	<3.7:1	>75%	SMA	Black, White
	ANT-5GWWS3-SMA	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5925	<4.5:1	>70%	SMA	Black
	ANT-5GWWS4-SMA-x	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5925	<4.7:1	>60%	SMA	White, Black
	ANT-5GWWS5-SMA	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5925	<2.9:1	>65%	SMA	Black
	ANT-5GWWS6-SMA	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5925	<3.9:1	>80%	SMA	Black





REMOTE MOUNT ANTENNAS

For mounting on the outside of an IoT or OEM device with a cabled connection directly to a PCB board inside a device.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	EFFICIENCY @ 2550-3700 MHZ (%)	CABLE LENGTH (CM)	CONNECTOR	COLOR
	ANT-LTE-HDP-2000-SMA	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-4990	<2.4:1	>35%	500, 1000, 2000, 3000	SMA	Black
	ANT-LTE-VDP-xx	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-4990	<2.5:1	>25%	500, 1000, 2000, 3000	SMA	Black
	ANT-5GW-MMG1-SMA-xx	1	5G/LTE-M/ CAT M1/ NB-IOT/ CBRS	617-4200	<3.6:1	>32%	1000, 2000, 3000	SMA	Black
	ANT-5GW-MMG2-SMA-xx	1	5G/LTE-M/ CAT M1/ NB-IOT/ CBRS	617-5000	<5.7:1	>50%	1000, 2000, 3000	SMA	Black
	ANT-5GW-SPS1-xx	1	5G/LTE-M/ CAT M1/ NB-IOT/ CBRS	410-5925	<3.0:1	>32%	1000, 2000, 3000	SMA	Black






MULTI-PORT ANTENNAS

Our broad range of multi-port IoT antenna offers multiple antenna types and mounting options. The antennas cover varying combinations of frequencies/technologies bands including CBRS, C-Band, 5G, LTE, Wi-Fi and GNSS.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	EFFICIENCY @ 2550-3700 MHZ (%)	CABLE LENGTH (MM)	CONNECTOR	COLOR
	L000321-01	3	5G/LTE-M/ CAT-M1/ NB-IOT/ Wi-Fi/ CBRS/ C-BAND/ GNSS	698-5900	<3.5:1	>60%	1000	SMA	Black
	L000322-xx	2 / 3	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ GNSS	698-3800	<2.0:1	>40%	1000	SMA	Black
	PDD61606C-200SMAM	2	5G/LTE-M/ CAT M1/ NB-IOT/ CBRS	617-6000	<3.0:1	>58%	2000	SMA	Black
	L000306-xx	4 / 5	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND GNSS	617-6000	<2.2:1	<77%	5000	SMA	White

RUGGED OMNIDIRECTIONAL ANTENNAS







For more demanding indoor or outdoor environmental conditions we have a range of omnidirectional antennas that are IP67 waterproof rated. Other ratings include shock, vibration, humidity etc. depending on the requirements and placement of the antenna.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	EFFICIENCY @		CONNECTOR	COLOR
						2550-3700 MHZ (%)			
	ANT-5GW-SPNF1	1	5G/LTE-M/ CAT M1/NB-IOT/ CBRS	617-5000	<7.0:1	>95%		N Type	Black
	FTRA6171M5xx	1	5G/LTE-M/ CAT M1/NB-IOT/ CBRS	617-7125	<4.0:1	>80%		N Type	Black, White
	FTRA6971M5xx	1	5G/LTE-M/ CAT M1/NB-IOT/ CBRS	698-7125	<3.0:1	>80%		N Type	Black, White
	FTRA6171M6xx	1	5G/LTE-M/ CAT M1/NB-IOT/ CBRS	617-7125	<3.5:1	>90%		N Type	Black, White
	FTRA6971M6xx	1	5G/LTE-M/ CAT M1/NB-IOT/ CBRS	698-7125	<3.5:1	>95%		N Type	Black, White
	DBA6171Cx	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-7125	<5.0:1	>70%		SMA	Black

EXTERNAL INFRASTRUCTURE ANTENNAS








For outdoor omnidirectional and directional coverage, our CBRS and C-Band-ready outdoor infrastructure antennas feature broad coverage and wide frequency support.

They are designed to resist the elements and are access point or pole/mast mountable.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	PEAK GAIN @ 2550-3700 MHZ (DBI)	CABLE LENGTH (CM)	CONNECTOR	COLOR
	ANT-5GW-IPW3-NP	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5925	<4.8:1	7.2	-	N Type	Black
	ANT-5GW-IPW1-NP	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5000	>4.8:1	3.7	-	N Type	White
	ANT-5GW-IPW2-NP	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	617-5000	<8.5:1	7.6	-	N Type	White
	OC35506P-FNF	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	3550-3700	<1.5:1	6.8	-	N Type	White
	S3307BPNF	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	3300-3800	<2.0:1	9.0	-	N Type	White
	OC69421-x	1	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND	698-4200	>2.5:1	5.0	-	N Type	White
	L000320-x	2, 3	5G/LTE-M/ CAT-M1/ NB-IOT/ CBRS/ C-BAND GNSS	617-6000	<2.5:1	5.6	500, 5000	N Type, SMA	WHITE

CEILING MOUNT DAS ANTENNAS

Our in-building line of CBRS-ready antennas support high-quality connectivity with a wide range of port options and covered frequencies. They are designed for optimal radiating efficiency while also providing pleasing aesthetics and slim form factors. They provide wide-angle coverage to provide the broadest coverage possible. They are low-PIM designs which resist interference for a more reliable connection.

PRODUCT IMAGE	PART NUMBER	NO. PORTS	FREQUENCY (MHZ)	VSWR (MAX)	PIM, 3RD ORDER (DBC, MAX)	CABLE LENGTH (MM)	CONNECTOR	MOUNTING OPTIONS	COLOR
	CFS35606Px	1	350-520 600-960 1350-1550 1690-6000	<2.5:1 <2.0:1	<-150	300	Type N, 4.3-10	Ceiling Tile, Hard Ceiling	White
	CMS38606Px	1	350-520 600-960 1395-1435 1690-6000	<3.0:1 <2.0:1	<-150	300	Type N, 4.3-10	Ceiling Tile	White
	CFS69383Px	1	698-960 1350-1550 1690-3800	<1.5:1 <2.0:1 <1.5:1	<-150	300	Type N, 4.3-10	Ceiling Tile, Hard Ceiling	White
	CFD69383Px	2	698-960 1350-1550 1690-4000	<1.5:1 <2.0:1 <1.8:1	<-150	300	Type N, 4.3-10	Ceiling Tile, Hard Ceiling	White
	CMD69423Px	2	698-960 1350-1550 1690-4200	<2.0:1	<-150	300	Type N, 4.3-10	Ceiling Tile	White
	CFS69594Px	1	698-960 1350-1550 1690-5925	<1.7:1 <1.7:1 <2.5:1	<-150	300	Type N, 4.3-10	Ceiling Tile, Hard Ceiling	White
	CFD69716Px	2	698-960 1350-1550 1690-7125	<1.7:1 <1.7:1 <2.3:1	<-150	300	Type N, 4.3-10	Ceiling Tile, Hard Ceiling	White

VEHICLE ANTENNAS

For vehicles that need multiple types of connections on the go, our multi-port mobile vehicular antennas are an industry-leading solution for multi-protocol connectivity with a single hole mount and a low-profile form factor. The antennas support up to 14 port configurations for multiple radio connections and are IP67-rated for reliable weather resistance in vehicle mounted applications.








IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	CABLE TYPE/ LENGTH	CONNECTOR	MOUNTING TYPE	COLOR
	L000423-01	6	2 x CBRS/ 5G/ISM 3 x Wi-Fi/ Bluetooth 1 x GNSS	617-960 1427-1511 1690-2700 3300-7125 L1 & L5 2400-2500 4900-7125	<2.0:1	LMR195/ 5000 mm	SMA	Single Direct Stud	Black
	L000423-07	6	2 x CBRS/ 5G/ISM 2 x Wi-Fi/ Bluetooth 1 x GNSS 1 x WHIP	617-960 1427-1511 1690-2700 3300-7125 L1 & L5 2400-2500 4900-7125 + Choice of Whip	<2.0:1	LMR195/ 5000 mm	SMA + TNC	Single Direct Stud	Black, White
	L000423-02 L000423-03	7	2 x CBRS/ 5G/ISM 2 x Wi-Fi/ Bluetooth 2 x GNSS 1 x WHIP	617-960 1427-1511 1690-2700 3300-7125 L1 & L5 2400-2500 4900-7125 + Choice of Whip	<2.0:1	LMR195/ 5000 mm	SMA, FAKRA, TNC	Single Direct Stud	Black, White
	L000423-04	8	2 x CBRS/ 5G/ISM 4 x Wi-Fi/ Bluetooth 1 x GNSS 1 x WHIP	617-960 1427-1511 1690-2700 3300-7125 L1 & L5 2400-2500 4900-7125 + Choice of Whip	<2.0:1	LMR195/ 5000 mm	SMA + TNC	Single Direct Stud	Black
	L000423-05 L000423-06	9	2 x CBRS/ 5G/ISM 4 x Wi-Fi/ Bluetooth 2 x GNSS 1 x WHIP	617-960 1427-1511 1690-2700 3300-7125 L1 & L5 2400-2500 4900-7125 + Choice of Whip	<2.0:1	LMR195/ 5000 mm	SMA, QMA, TNC	Single Direct Stud	Black

IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	CABLE TYPE/ LENGTH	CONNECTOR	MOUNTING TYPE	COLOR
	VFH69383x22JU	6	2x CBRS/5G/ISM 2x Wi-Fi 1x UHF 1x GNSS	380-520 698-960 1690-3800 2400-2500 4900-6000	2.5:1 (UHF/LTE) 2.0:1 (Wi-Fi)	RG174/ 518mm	LTE: SMA Male Wi-Fi: SMA Male UHF: SMA or QMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFH69383x23JW	6	2x CBRS/5G/ISM 3x Wi-Fi 1x GNSS	698-960 1690-3800 2400-2500 4900-6000	<2.0:1	RG174/ 518 mm	LTE: SMA Male Wi-Fi: SMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFP69383x22JN	5	2x CBRS/5G/ISM 2x Wi-Fi 1x GNSS	698-960 1690-3800 2400-2500 4900-6000	<2.0:1	RG174/ 518mm or 91mm	LTE: SMA Male Wi-Fi: SMA or RPSMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFQ69383x2NJU	4	2x CBRS/5G/ISM 1x UHF 1x GNSS	380-520 698-960 1690-3800 2400-2500 4900-6000	2.5:1 (UHF/LTE) 2.0:1 (Wi-Fi)	LMR 100 Pigtailed, LMR195 Jumper Cables/ 518 mm	LTE: SMA Male UHF: SMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFQ69383x21JN	4	2x CBRS/5G/ISM 1x Wi-Fi 1x GNSS	698-960 1690-3800 2400-2500 4900-6000	<2.0:1	RG174/ 518 mm	Wi-Fi: RPSMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFT69383x11JN	3	1x CBRS/5G/ISM 1x Wi-Fi 1x GNSS	698-960 1690-3800 2400-2500 4900-6000	<2.0:1	RG174/ 518 mm	LTE: SMA Male Wi-Fi: RPSMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFT69383x2NJN	3	2x CBRS/5G/ISM 1x GNSS	698-960 1690-3800 2400-2500 4900-6000	<2.0:1	LMR 100 Pigtailed, LMR195 Jumper Cables/ 518 mm	LTE: SMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VFD69383x1NJN	2	1x CBRS/5G/ISM 1x GNSS	698-960 1690-3800 2400-2500 4900-6000	<2.0:1	LMR 100 Pigtailed, LMR195 Jumper Cables/ 518 mm	LTE: SMA Male GNSS: SMA Male	Single Direct Stud	Black, White
	VQJ69595B-x	4	2x CBRS/5G/ISM 1x Wi-Fi 1x GNSS	698-960 1710-2700 2400-2500 4900-5900	<3:1:1	Wi-Fi & LTE: LMR 100 GNSS: RG174/ 914 mm	LTE & GNSS: SMA/FAKRA Wi-Fi: RP-SMA/FAKRA	Adhesive	Black
	VPJ69595B-x	5	2x CBRS/5G/ISM 2x Wi-Fi 1x GNSS	698-960 1710-2700 2400-2500 4900-5900	<3:1:1	Wi-Fi & LTE: LMR 100 GNSS: RG174/ 914 mm	LTE & GNSS: SMA/FAKRA Wi-Fi: RP-SMA/FAKRA	Adhesive	Black

VEHICLE ANTENNAS CONTD.

IMAGE	PART NUMBER	NO. PORTS	COVERAGE	FREQUENCY (MHZ)	VSWR (MAX)	CABLE TYPE/ LENGTH (MM)	CONNECTOR	MOUNTING TYPE	COLOR
	L000434-07	4	4 x CBRS/ 5G/ISM	617-960 1427-1511 1690-2700 3300-7125	<1.5:1	LMR195/ 5000 mm	SMA	Single Direct Stud	Black
	L000434-04 L000434-05 L000434-06	8	4 x CBRS/ 5G/ISM 2 x Wi-Fi 1 x Bluetooth 1 x GNSS	617-960 1427-1511 1690-2700 3300-7125 2400-2500 4900-7125	<1.5:1	LMR195/ 5000 mm	SMA, FAKRA	Single Direct Stud	Black, White
	L000434-01 L000434-02 L000434-03	9	4 x CBRS/ 5G/ISM 4 x Wi-Fi 1 x GNSS	617-960 1427-1511 1690-2700 3300-7125 2400-2500 4900-7125	<1.5:1	LMR195/ 5000 mm	SMA, FAKRA	Single Direct Stud	Black, White
	L000434-08	14	4 x CBRS/ 5G/ISM 8 x Wi-Fi 1 x Bluetooth 1 x GNSS	617-960 1427-1511 1690-2700 3300-7125 2400-2500 4900-7125	<1.5:1	LMR195/ 5000 mm	SMA	Single Direct Stud	Black

CUSTOM ANTENNAS

After decades of engineering and OEM manufacturing experience, TE Connectivity's RF engineering and testing practices have set the standard for high performance and reliability. Let us help you accelerate your wireless product development, with our end-to-end custom antenna manufacturing expertise. [Submit your request on te.com.](#)

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