

The **CPRA series** collapsible parabolic reflector antennas offer a practical approach to easily transported, high gain, narrow beam antennas. These are ideally suited for tactical applications. For standard **CPRA models**, the dish, the feed and the support break into components, which fit in a standard carrying case, along with an optional collapsible tripod and an antenna mount assembly.



CPRA TILT MECHANISM



CPRA-112/B

The CPRA's manually operated tilt mechanism allows positioning of the antenna over 360 degrees horizontally and from +50 to -30 degrees vertically.

SPECIFICATIONS

IMPEDANCE: 50 Ohms

VSWR: 2 :1 max

	FREQUENCY (GHz)	GAIN (dBi)	SIDELobe LEVEL (dB)	BEAMWIDTH (DEG.)	FRONT TO BACK RATIO	CONNECTOR	POWER (W)
CPRA-827/B*	0.8 - 2.7	16.5 - 27	-15	24 -7	20 dB	N female	50
CPRA-12/B*	1.5 - 2.5	22 - 25	-17	10.5 - 6.5	20 dB	N female	10
CPRA-23/B*	2.0 - 3.0	23.5 - 27	-12	8 - 5.5	20 dB	N female	10
CPRA-35/B*	3.0 - 5.0	27 - 30	-20	5.5 - 3.5	20 dB	N female	10
CPRA-112/B*	1.0 - 12.4	18 - 36.5	-17	16 - 2	20 dB	N female	50
CPRA-118**	1.0 - 18.0	18 - 42	-17	16 - 1.5	20 dB	SMA female	*

* Reflector Size: 45"

*Optional:

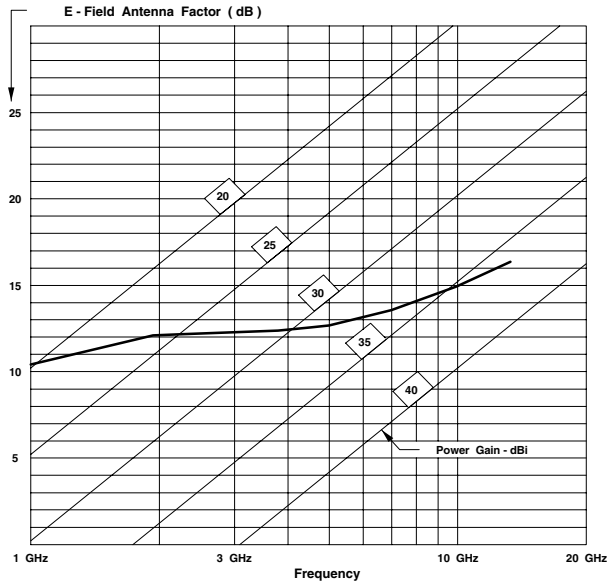
1) Other Reflector Sizes (3 & 6 feet diameters)

2) For larger 6' collapsible dishes and/or for outdoor applications, a mast (pipe) mounting, a heavy-duty collapsible tripod and/or a heavy-duty base with a mast are available. The azimuth and elevation aiming may be controlled manually using the optional antenna mount.

** See page 42 for different versions of the 1-18 GHz, **CPRA-118** antennas.

COLLAPSIBLE REFLECTOR ANTENNAS

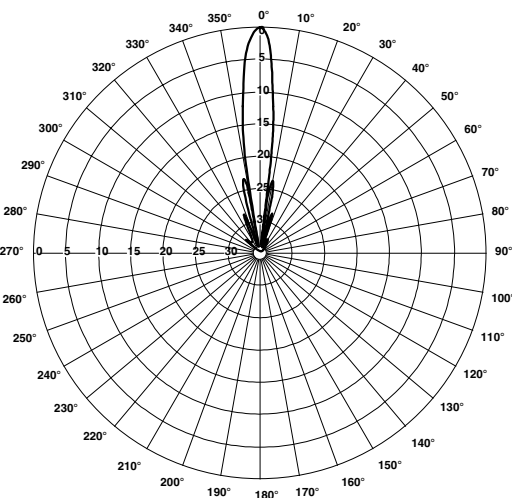
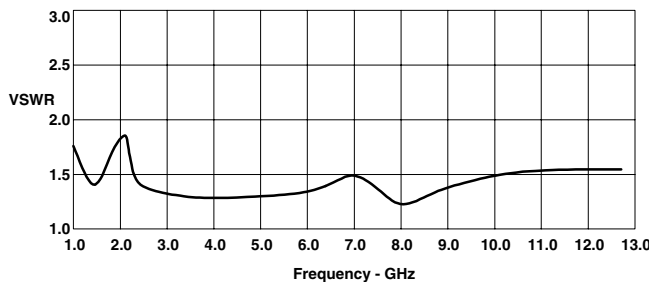
TYPICAL FAR - FIELD, E-FIELD ANTENNA FACTOR AND GAIN FOR MODEL CPRA-112/B



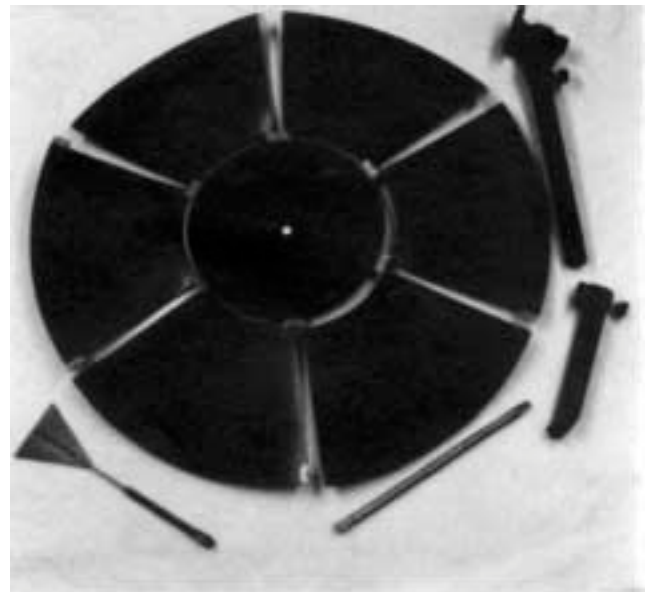
COAXIALLY MOUNTED FEEDS FOR CPRA-112/B AND CPRA-23/B

These antennas can be focused to optimize reception from sources at distances from about twenty feet to infinity by moving the feed axially in its mount. The feed may also be rotated to optimize the polarization as it travels. The feed barrel is accurately guided on the dish axis by low friction front and rear bushings for minimum boresight squint. The barrel is marked for the best feed locations as a function of frequency for sources at large distances. The rear bushing is a collet with a large knurled hand-nut that locks the feed accurately and firmly in position. Once locked, the entire dish and feed can be rotated as a unit to vary polarization only. A top-quality rotating joint (optional) is available at the output and prevents twisting of the feed cable.

Model CPRA-112/B - VSWR



H-Plane Radiation Pattern for CPRA-112/B at 2 GHz

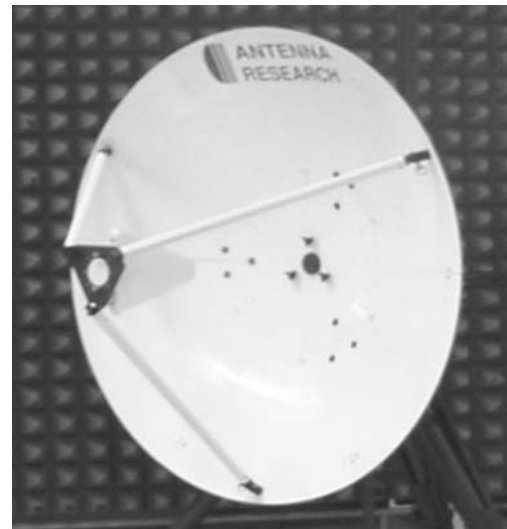


CPRA-112 – Disassembled

1-18 GHz COLLAPSIBLE REFLECTOR ANTENNAS

ARA offers various versions of our 1-18 GHz antenna, **CPRA-118**, to meet specific needs. The **CPRA-118/C** has latches for quick assembly with no tools required. It replaces our original **CPRA-118/B** antenna. The **CPRA-118/C** has a seven-piece set of aluminum reflector panels. All pieces assemble to form a 45" parabolic reflector. The **CPRA-118/D** is similar to the **CPRA-118/C** except that it uses a lightweight composite material for the parabolic reflector.

The **CPRA-118/A3** is a 1-18 GHz antenna which includes a 36" reflector supplied in four sections. Special latches allow quick assembly. The **CPRA-118/A3**, **CPRA-118/C** and the **CPRA-118/D**, are supplied with a standard wideband log periodic feed covering 1-18 GHz.



CPRA 118

For high power and transmit applications, models **CPRA-118/C-2** or **CPRA-118/D-2** are supplied with a 1-18 GHz dual ridge horn feed. The **CPRA-118/C-2** is capable of handling power levels in excess of 250W CW. These antennas are widely used in susceptibility testing and ECM applications. All CPRAs are available with one or more of the following options:

- 1) Antenna Mount Assembly with **TP-4** tripod
A lockable swivel joint at the tripod head controls azimuth aiming, and elevation is controlled by a smooth non-overriding gear train. All controls are easily operated from the rear of the dish. Height is determined by both the adjustable legs of the heavy-duty tripod, and by a lockable hand crank.
- 2) TP- 9 Tripod with pan/tilt head. Heavy duty, highly compact, and our strongest, designed for tactical/military and field applications.
- 3) Heavy Duty Rigid Carrying Case
- 4) Polarization Rotator with controller
- 5) Azimuth rotator with controller
- 6) EL/AZ Positioning system with controller
- 7) Telescopic Mast

SELECTION TABLE FOR CPRA-118s

ARA MODEL	REFLECTOR MATERIAL	REFLECTOR SIZE	NUMBER OF SECTIONS FOR REFLECTOR	FEED TYPE	POWER
CPRA-118/C-1	Aluminum	45"	7	LPD	5W
CPRA-118/C-2				DRG	200W
CPRA-118/C-3				4 Horns	1 kW / 50W for 18 GHz
CPRA-118/C-4				LPC	10W
CPRA-118/D-1	Composite	48"	7	LPD	5W
CPRA-118/D-2				DRG	200W
CPRA-118/D-3				LPC	10W
CPRA-118/A3	Aluminum	36"	4	LPD	5W