

Base Station UHF

UHF Folded Dipoles & Yagis - Commercial Series

Models CFDU & CY2U to CY12U

The Hi-Tec Commercial Range of UHF yagis and folded dipoles are designed for urban or rural site installations. Being lightweight with small projected surface areas, they can be installed on low cost supports. The coding "FD" indicates Folded Dipole and "Y" indicates Yagi.

Commercial series antennas are constructed from Grade 6000 series aluminium. Corrosion resistance is increased by silver finished anodising. Elements are 12 x 1.4mm extruded sections, which provides a robust antenna. The boom section is 25 x 25 x 1.7mm square tube, to which the driven element is clamped. The parasitic elements are fitted through the boom and fixed with aluminium rivets.

The nominal feed impedance is 50 ohms with the matching section sealed within the driven element, eliminating the need for an external balun. A 1m tail of RG58 coax is fitted as standard. See table below for typical bandwidth. All elements are D.C. grounded.

Mounting for vertical polarisation is standard with the clamp located at the rear of the boom. Three mounting options are available for clamping to 25mm, 38mm or 48mm outside diameters, with the 25mm clamp supplied as standard. As an alternative the Universal Clamp (CLUV) clamp may be used, providing flexibility in mounting to either vertical or horizontal polarisation.

MODEL	Frequency (MHz)	MODEL	Frequency (MHz)
CFDU-T	400-450	CY6U-CD	450-470
CFDU-CDF	450-500	CY6U-F	470-495
CY2U-T	400-430	CY8U-T	400-430
CY2U-JL	430-450	CY8U-JL	430-450
CY2U-CDF	450-495	CY8U-CD	450-470
CY3U-T	400-430	CY8U-F	470-495
CY3U-JL	430-450	CY10U-T	400-430
CY3U-CDF	450-495	CY10U-JL	430-450
CY4U-T	400-430	CY10U-CD	450-470
CY4U-JL	430-450	CY10U-F	470-495
CY4U-CDF	450-495	CY12U-T	400-430
CY6U-T	400-430	CY12U-JL	430-450
CY6U-JL	430-450	CY12U-CD	450-470
		CY12U-F	470-495



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Specification:

MODEL	CFDU	CY2U	CY3U	CY4U	CY6U
Number of Elements	1	2	3	4	6
Frequency Range (MHz)	400-500				
Bandwidth (MHz)	100	50	20	50	30
Gain (dBd)	0	3	4.5	6.5	8
Half Power Beamwidth E Plane (deg)	N/A	75	67	60	50
Half Power Beamwidth H Plane (deg)	N/A	145	114	85	42
Front to Back Ratio (dB)	0	10	15		20
Input Impedance (ohms)	50				
Return Loss (dB & VSWR)	<-14dB 1.5:1				
Maximum Power (W)	100				
Cable Type & Length	RG58, 1 Metre				
Connector Type	None				
Max Element Length (mm)	320	400			
Boom Length (mm)	375	300	400	600	980
Boom Diameter (mm)	25 square				
Projected Area (m ²)	0.020	0.023	0.030	0.040	0.058
Weight (kg)	0.6	0.6	0.7	0.8	1.0
Mounting Location	Rear				

Optional Extras:

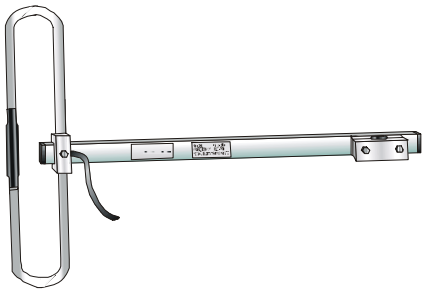
- **Horizontal Mounting.**
- **Connector fitted.**
- **Longer coax tails in either RG58, RG213, or low-loss RG58 coax are available.**
- **Other frequencies available on request.**

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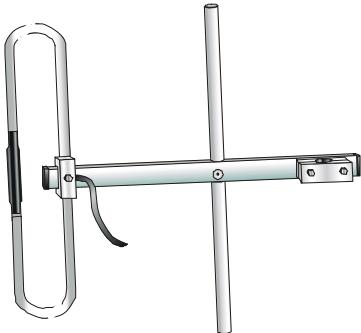
Specification:

MODEL	CY8U	CY10U	CY12U
Number of Elements	8	10	12
Frequency Range (MHz)	400-500		
Bandwidth (MHz)	30	20	20
Gain (dBd)	9	10	11
Half Power Beamwidth E Plane (deg)	40	35	33
Half Power Beamwidth H Plane (deg)	43	37	36
Front to Back Ratio (dB)	20		
Input Impedance (ohms)	50		
Return Loss (dB & VSWR)	<-14dB 1.5:1		
Maximum Power (W)	100		
Cable Type & Length	RG58, 1 Metre		
Connector Type	None		
Max Element Length (mm)	400		
Boom Length (mm)	1350	1700	1900
Boom Diameter (mm)	25mm square		
Projected Area (m ²)	0.076	0.094	0.108
Weight (kg)	1.2	1.4	1.55
Mounting Location	Rear		

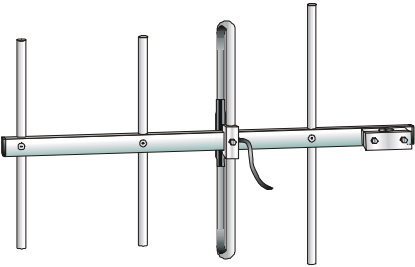
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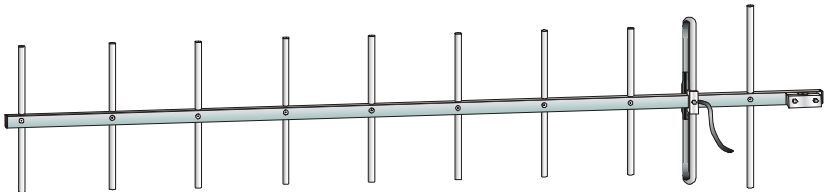
CFDU



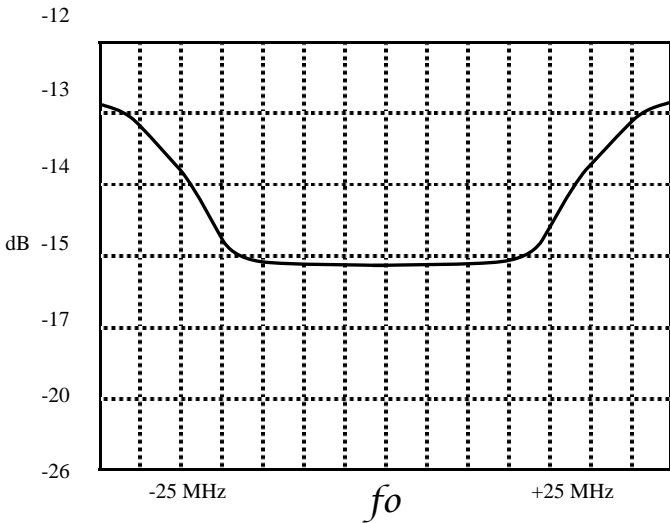
CY2U



CY4U



CY10U



Typical Return Loss - CFDU