



## FMCPX series

### Circular polarised medium to high powered dipoles FM Radio broadcast 87.5-108 MHz



These FMCPX broadcast dipoles offer a truly circular radiation pattern with equal power emitted throughout all planes. The benefit is an improved coverage area for your FM radio station.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

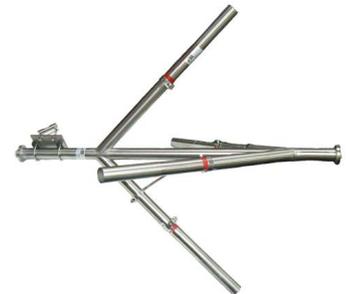
	FMCPX-78	FMCPX-716	FMCPX-N
Construction	Fully-welded 304 grade stainless steel		
Maximum bandwidth specify when ordering	A = 87.5-96 MHz B = 93.5-102.5 MHz C = 100.0-108 MHz or specify 8MHz requirements		87.5-108 MHz specify 5 MHz
Tuning	Factory		
VSWR	<1.2:1 across specified bandwidth		
Gain	-3 dBd per bay, stacking increases gain		
Polarisation	Circular $\pm$ 2.2 dB		
Impedance	50 Ohms		
Connector - fitted	7/8" EIA	7/16" DIN female	N-type female
Maximum power per bay	5 Kilowatts	2 Kilowatts	500 Watts
DC grounding	Yes		
Weight per bay	13.5kg	12.5kg	5.5kg
Projected area	0.159m <sup>2</sup>	0.150m <sup>2</sup>	0.096m <sup>2</sup>
Wind load at 160kph	19.2kg, 0.189kN	19kg, 0.180kN	11.6kg, 0.144kN
Dimensions - Length x Dia.	1.5m x 50mm		1.5m x 25mm (square boom)
Mounting hardware supplied	1 x Y2300-SS larger capable mounting available		1 x S48-AM
Mounting options <a href="#">enquire for details</a>	Stack arrays with branch feeder cables and power dividers, rear screens or radial bars		
<a href="#">Installation tools required</a>	13mm and 19mm spanners for U-bolt securing		
Warranty	2 Years		
Additional systems accessories - order separate	<ul style="list-style-type: none"> <li>- A-2555 rear radials - FMCPX-78/716 only</li> <li>- Double bridge combiners</li> <li>- Star point combiners</li> <li>- Multi-cavity filters</li> </ul>		



FMCPX-N with N-type termination



S48-AM 32-50mm capability - supplied, FMCPX-N model only



FMCPX-716 with 7/16" DIN female termination



FMCPX-78 with 7/8" EIA termination

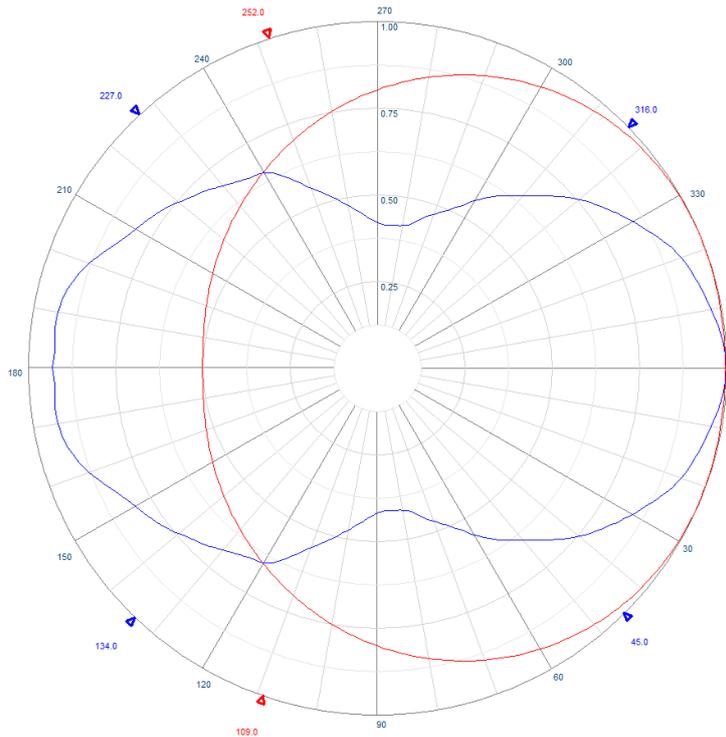


Y2300SS 32-50mm capability - supplied for FMCPX-716 and FMCPX-78

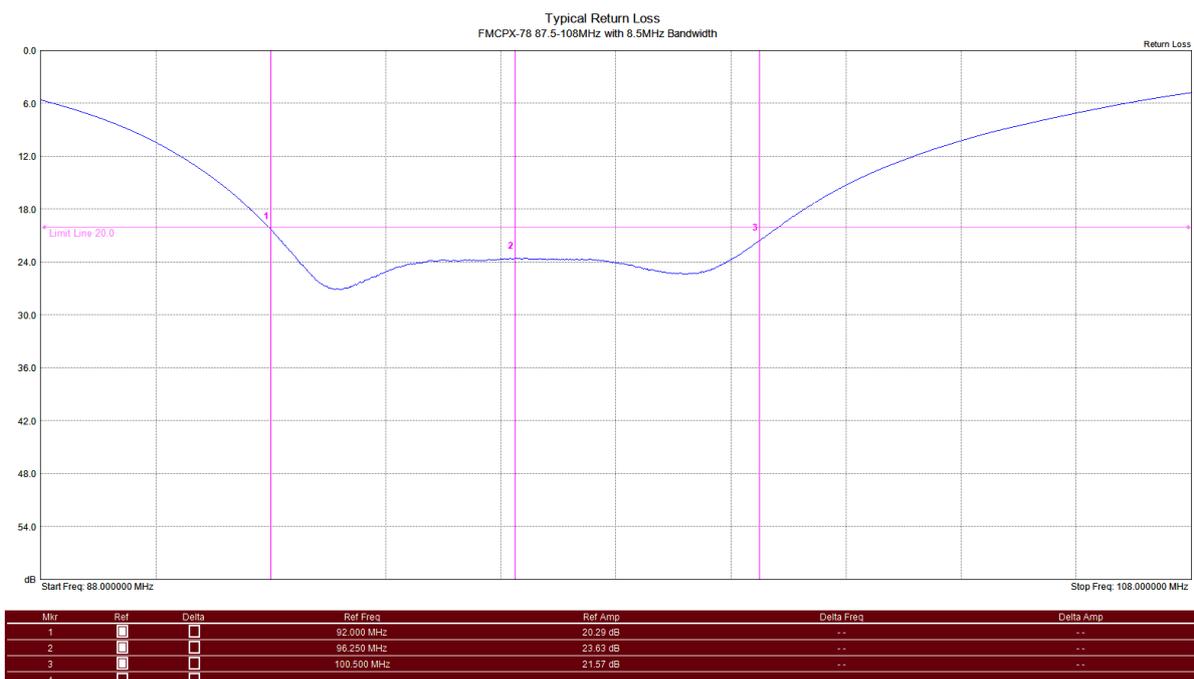


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Example radiation pattern



Typical Return Loss - FMCPX-78





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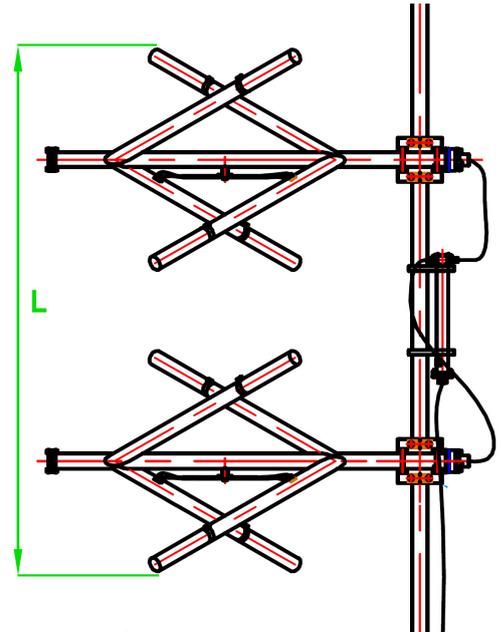


#### Mechanical Data - FMCPX-78 / FMCPX-716

Height of array	Subject to configuration, spacings calculated in handbook
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - supplied, not fitted

#### Technical Data - FMCPX-78 / 716 - Dimensions calculated at 88 MHz, scaled spacings in handbook

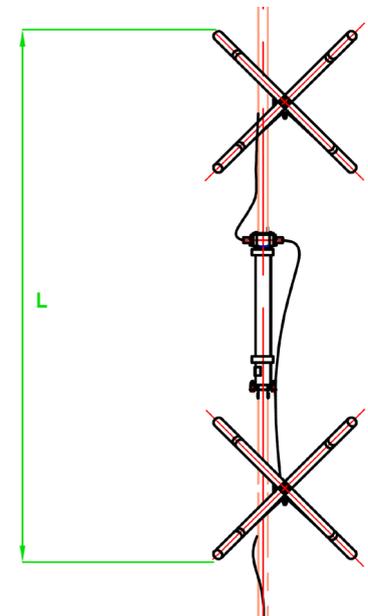
Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	1/2 λ	-3	13.5	1.1	0.189
2 dipoles		0	27.0	4.2	0.378
4 dipoles		3	54.0	10.3	0.756
6 dipoles		4.5	81.0	16.4	1.134
8 dipoles		6	108	22.5	1.512



- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h
- Antenna height is indicative dimensions, please utilise dimensions calculated in Broadcast handbook supplied with antenna

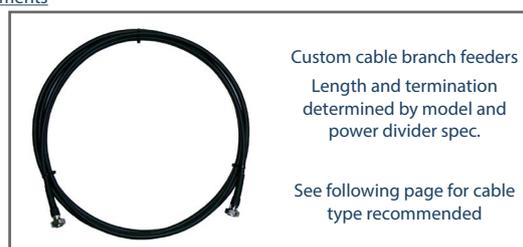
#### Technical Data - FMCPX-N - Dimensions calculated at 88 MHz, scaled spacings in handbook

Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	1/2 λ	-3	5.5	1.1	0.144
2 dipoles		0	11.0	4.2	0.288
4 dipoles		3	22.0	10.3	0.576
6 dipoles		4.5	33.0	16.4	0.864
8 dipoles		6	44.0	22.5	1.152



- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h
- Antenna height is indicative dimensions, please utilise dimensions calculated in Broadcast handbook supplied with antenna

#### Array requirements





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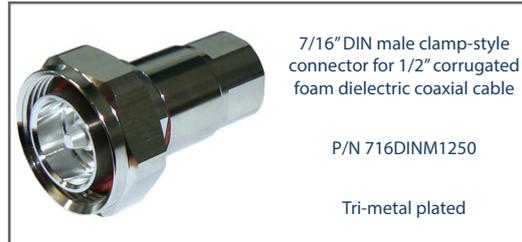
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1/2" corrugated shielded, foam dielectric coaxial cable

P/N ZCG1250

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



7/16" DIN male clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 716DINM1250

Tri-metal plated



7/8" EIA flanged clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 78EIA1250



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



7/16" DIN male clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 716DINM7850

Tri-metal plated



7/8" EIA flanged clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 78EIA7850



7/8" corrugated shielding, air dielectric coaxial cable

P/N ZCG7850-A

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



7/8" EIA Air-pass flanged clamp-style connector for 7/8" corrugated air dielectric coaxial cable or air-radiating cable

P/N 78EIA7850-A



1-5/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG1580

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



1-5/8" corrugated shielding, air dielectric coaxial cable

P/N ZCG1580-A

Available in per metre, or 500m rolls or alternatively request a custom cable assembly

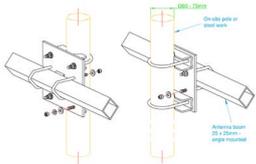


## FMCPX series

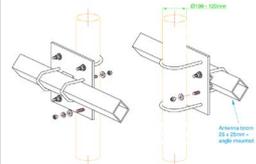
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### Alternate mounting hardware - FMCPX-N only



**S48-AM-76**  
304 stainless steel large right-angle mount clamp  
Boom: 25mm RHS capability  
Mount pole: 60-75mm capability



**S48-120-AM**  
304 stainless steel large right-angle mount clamp  
Boom: 25mm RHS capability  
Mount pole: 100-120mm capability

### Suitable feeder coaxial cable and connectors



1/2" super flexible helical shielded, foam dielectric coaxial cable  
P/N ZCG1250SF  
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable  
P/N NM1250SF  
Tri-metal plated



1/2" corrugated shielded, foam dielectric coaxial cable  
P/N ZCG1250  
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable  
P/N NM1250  
Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable  
P/N ZCG7850  
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable  
P/N NM7850  
Tri-metal plated

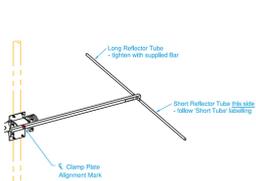
### Additional tower installation accessories



**A-2662-2**  
Aluminium single finger lightning finial - 3.0m  
includes mounting hardware for up to 60mm dia. pole



**A-2662-5**  
Aluminium tri-finger lightning finial - 3.2m  
includes mounting hardware for up to 60mm dia. pole



**A-2555**  
Rear radial assembly for FMCPX-78 and FMCPX-716 series only - does not suit FMCPX-N



Coaxial cable grounding kits  
- GK1250 - 1/2" corrugated  
- GK1250SF - 1/2" helical  
- GK7850 - 7/8" corrugated

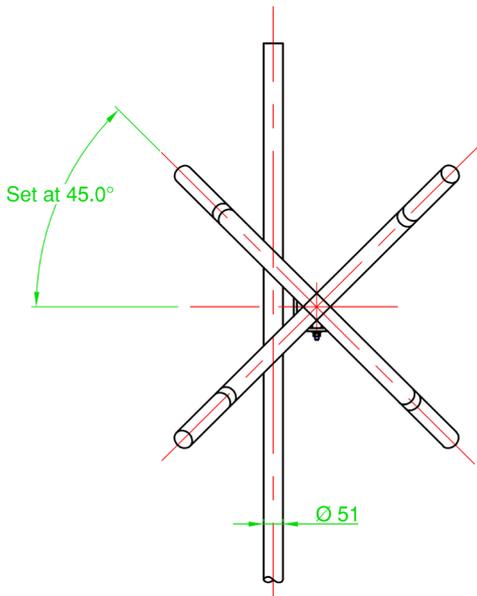


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FMCPX series on mount pole



FRONT VIEW

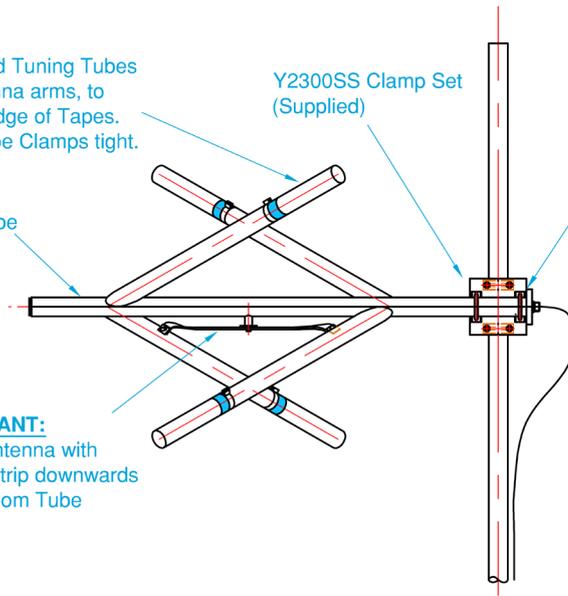
**NOTE:**

Fit marked Tuning Tubes into Antenna arms, to starting edge of Tapes. Screw Pipe Clamps tight.

Boom Tube

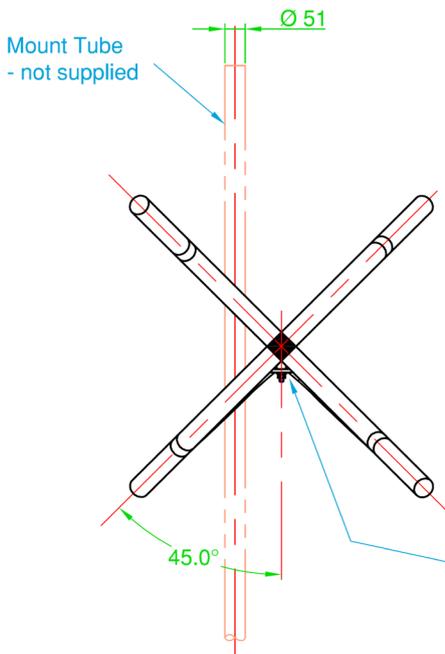
**IMPORTANT:**

Mount Antenna with Feeder Strip downwards below Boom Tube



SIDE VIEW

FMCPX-N series on mount pole



FRONT VIEW

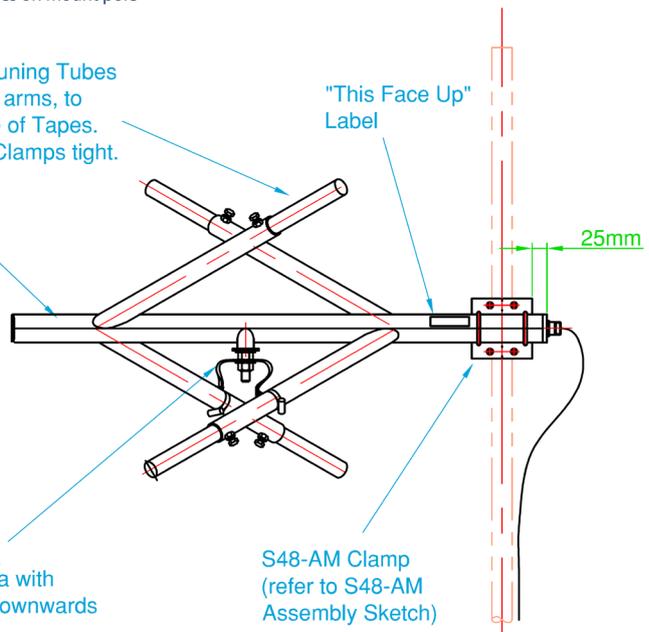
**NOTE:**

Fit marked Tuning Tubes into Antenna arms, to starting edge of Tapes. Screw Pipe Clamps tight.

Boom Tube

**IMPORTANT:**

Mount Antenna with Feeder Strip downwards



SIDE VIEW



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FMCPX series fitting with A-2555

