

## SPECIFICATIONS:

Electrical: DF	
Frequency range	20 – 3000 MHz
Polarisation	Vertical
Nominal input impedance	50 $\Omega$
Connectors	15 x TNC-M on cables
Cable exit	Standard flange for switch mounting
Electrical: VP omni	
Frequency range	20 – 3000 MHz
Polarisation	Vertical
Nominal input impedance	50 $\Omega$
Connector	1 x N-M on cable
Power supply requirements	DC 15 $\pm$ 1 V, 300 mA on coax
Cable exit	Through base of antenna
Electrical: HP omni	
Frequency range	20 – 3000 MHz
Polarisation	Horizontal
Nominal input impedance	50 $\Omega$
Connectors	20 – 100 MHz : N-M on cable 100 – 500 MHz: N-M on cable 500 – 1000 MHz: N-M on cable 1 – 3 GHz: N-M on cable
Mechanical:	
Dimensions	$\varnothing$ 2.6 m x 5.5 m
Total mass	125 kg
Internal joining	Bolted flanges
Mounting method	Flange mounted 8 off 12 mm holes on 280 mm PCD
Environmental: designed to meet the following specifications	
Wind survival	160 km/h (without ice)
Effective wind area	1.8 m <sup>2</sup> (including DF switch)
Temperature (operational)	-30 $^{\circ}$ C to +70 $^{\circ}$ C
Temperature (storage)	-40 $^{\circ}$ C to +71 $^{\circ}$ C

## PRODUCT FEATURES:

- Three-band direction finding array optimised for two-channel receivers
- Hinge mounting flange for DF switch, with cable re-entry port
- Vertical and horizontal monitoring
- Concentric design eliminates shadowing

## APPLICATION AREAS:

- ITU applications
- Spectrum monitoring
- Wide area direction finding

## PRODUCT DESCRIPTION:

The SYST-A0004 is an antenna stack comprising **DF-A0038** vertical polarisation DF and Omni, and **OMNI-A0099** and **OMNI-A0100** horizontal omni antennas. At the base it is supported by the **MISC-A0047** support cage. All RF and control signals pass through the **MISC-A0045** amplifier block which compensates for cable losses.

Mounted on a mast, with vertical and horizontal polarisation monitoring, and interferometric direction finding, it provides a complete spectrum monitoring and DF solution. A DF switch can be mounted at the base of the DF array. Its cables can be fed back into the mast and routed through the omnis.

The horizontal-polarisation omni antennas feature a cable duct for connection of antennas above, without distortion of their patterns. All monitoring antennas share a common axis, giving excellent radiation patterns.

- **MISC-A0045** – 5-channel amplifier block to compensate for long cable runs.
- **MISC-A0047** – support cage at base of stack, allows access to amplifier block and cables.



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