

SENCITY® SC Panel

1399.31.0251

Properties

- 4-Port Panel Antenna
- Frequency Range
698-960MHz / 1710-2170 MHz
- GSM-R / FRMCS
- Dual Polarization (X-Pol)
- Half-power Beam Width
33°
- Gain 20 dBi
- ETSI 300 019-1-4 class 4.1 E

**Electrical data**

	Band 1	Band 2	Band 3	Band 4
Frequency	698 MHz ... 806 MHz	790 MHz ... 894 MHz	880 MHz ... 960 MHz	1710 MHz ... 1880 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
Polarization	±45°	±45°	±45°	±45°
VSWR	1.5	1.5	1.5	1.5
Gain at mid tilt	18.8 dBi	19.5 dBi	20 dBi	20 dBi
Gain over all tilts	18.8 ±0.6 dBi	19.4 ±0.6 dBi	19.9 ±0.5 dBi	19.9 ±0.6 dBi
Horizontal beamwidth (3dB)	36 ±4 °	33 ±4 °	30 ±3 °	34 ±4 °
Vertical beamwidth (3dB)	8.4 ±0.9 °	7.6 ±0.7 °	7 ±0.5 °	6.8 ±0.7 °
Cross polar Isolation	27 dB	27 dB	27 dB	27 dB
Port isolation, interband	28 dB	28 dB	28 dB	28 dB
Co/Cross polar ratio, boresight	20 dB	20 dB	20 dB	20 dB
Front to Back Ratio, Copolar, ±30°	27 dB	27 dB	27 dB	28 dB
Sidelobe suppression, 1st upper	17 dB	17 dB	17 dB	17 dB
Vertical electrical downtilt	0-8	0-8	0-8	0-8
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	300 W	300 W	300 W	300 W
Passive Intermodulation	-150 dBc 2x 43 dBm Carrier	-150 dBc 2x 43 dBm Carrier	-150 dBc 2x 43 dBm Carrier	-150 dBc 2x 43 dBm Carrier

	Band 5	Band 6
Frequency	1850 MHz ... 1990 MHz	1920 MHz ... 2170 MHz
Impedance	50 Ω	50 Ω
Polarization	±45°	±45°

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	Band 5	Band 6
VSWR	1.5	1.5
Gain at mid tilt	20.4 dBi	20.8 dBi
Gain over all tilts	20.3 ±0.6 dBi	20.7 ±0.6 dBi
Horizontal beamwidth (3dB)	32 ±4 °	30 ±3 °
Vertical beamwidth (3dB)	6.4 ±0.7 °	6.1 ±0.7 °
Cross polar Isolation	27 dB	27 dB
Port isolation, interband	28 dB	28 dB
Co/Cross polar ratio, boresight	20 dB	20 dB
Front to Back Ratio, Copolar, ±30°	28 dB	28 dB
Sidelobe suppression, 1st upper	17 dB	17 dB
Vertical electrical downtilt	0-8	0-8
Ambient Temperature	25 °C	25 °C
Composite Power max	300 W	300 W
Passive Intermodulation	-150 dBc 2x 43 dBm Carrier	-150 dBc 2x 43 dBm Carrier

Electrical remarks

Remarks	Value based on NGMN-P-BASTA requirement Internal RET (2CH)
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Ports

	Port 1 to 2	Port 3 to 4
Port name	R1	B1
Connector	4.3-10, jack (female)	4.3-10, jack (female)
Connector position	Bottom	Bottom
Polarization	±45°	±45°
DC grounded	Yes	Yes

Connections

	Port 1 to 2	Port 3 to 4
Port name	R1	B1
Band 1	✓	
Band 2	✓	
Band 3	✓	
Band 4		✓
Band 5		✓
Band 6		✓

Mechanical data

Weight	33.5 kg
Dimensions	2695 mm x 565 mm x 170 mm (Height x Width x Depth)
Windload	front: 1982 N at 150 km/h, lateral: 596.4 N at 150 km/h, Wind Speed survival: 216 km/h

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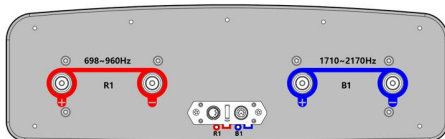
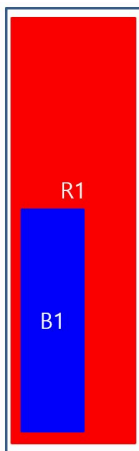
Material data	
Radome material	FRP (Fiber-reinforced plastic)
Radome colour	Gray

Environmental data	
Operation temperature	-55 °C ... 70 °C
Environment (application)	Outdoor

Environmental remarks
Environmental tests: ETSI 300 019-2-4

Related Products
738546 Clamp 42-115mm
85010002 Clamp 110-220mm
85010003 Clamp 210-380mm
85010009 Downtilt Kit

Ordering information		
Item description	Item number	Product name
1399.31.0251	85240051	SENCITY® SC Panel

Layout

Antenna Model	Connector	CH	RET Serial
1399.31.0251	R1	RET 1	HSXXXXXXXXYYWW00000
1399.31.0251	B1	RET 2	HSXXXXXXXXYYWW00000

Remark : YY – Year, WW – Week, 00000 – Serial Number

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