

Maven digital DAS EMEA-APAC

Cumulus six band medium power

Datasheet version 2.4

**Outstanding
Performance**

**End to end
Digital platform**

**Always
Future-proof**

**Overall
Cost efficiency**

**More
Sustainable**

Maven Wireless offers new solutions for wireless coverage in all parts of the world. Our products are end to end digital and future-proof, comes with the best performance and cost efficiency you can find. We also have high marks on sustainability and a burning passion for making our customers and end-users life safer, better and easier by securing 100% wireless coverage.

**Cumulus remote unit
Orion head end unit**



Orion specification



General

Mains power	85 – 264 VAC, redundant, field replaceable -72 – -36 VDC, redundant, field replaceable
Power consumption	100 W fully loaded*
Management	Ethernet 10/100/1000 micro USB Standard USB accessory connector 4 external alarm inputs & 1 external alarm output optional Optional built in 4G modem
Operating temperature	+5 to +45 °C
RF input	Up to 8 hot swappable band modules
System Gain	15 to 45 dB in 0.1 dB steps
Gain Flatness	1 dB pp

Digital Interface

CPRI ports	4 x QSFP+ connectors with option for SFP+ adapter Breakout panel up to 16 SFP+ lanes
Spectrum bandwidth	Up to 1200 MHz RF spectrum per QSFP+ connector, either as a single WDM link or four 300MHz links
Single mode fibre	1310 nm band, up to 40 km distance
Multi mode fibre	850 nm band, up to 300 m distance

RF Module

Connections	4 RF interfaces, each with a duplex and simplex QMA connection.
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RF input range	0 to +30 dBm composite per RF module
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Frequencies	<table><thead><tr><th>Uplink</th><th>Downlink</th></tr></thead><tbody><tr><td>703 – 748 MHz</td><td>758 – 803 MHz</td></tr><tr><td>824 – 844 MHz</td><td>869 – 889 MHz</td></tr><tr><td>832 – 862 MHz</td><td>791 – 821 MHz</td></tr><tr><td>880 – 915 MHz</td><td>925 - 960 MHz</td></tr><tr><td>1710 – 1785 MHz</td><td>1805 – 1880 MHz</td></tr><tr><td>1920 – 1980 MHz</td><td>2110 – 2170 MHz</td></tr><tr><td>2500 – 2570 MHz</td><td>2620 – 2690</td></tr></tbody></table>	Uplink	Downlink	703 – 748 MHz	758 – 803 MHz	824 – 844 MHz	869 – 889 MHz	832 – 862 MHz	791 – 821 MHz	880 – 915 MHz	925 - 960 MHz	1710 – 1785 MHz	1805 – 1880 MHz	1920 – 1980 MHz	2110 – 2170 MHz	2500 – 2570 MHz	2620 – 2690
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Mechanical

Dimensions (height, width, depth)	130 x 436 x 309 mm in standard 19" rack format
Weight	< 8 kg

*Thermal dissipation +- 15 %

Cumulus specification



General

Mains power	85 – 264 VAC, -72 – -36 VDC optional
Power consumption	300 W fully loaded**
Management	Ethernet 10/100/1000 , micro USB, Standard USB accessory connector
Operating temperature	-25 to +55 °C
Ingress protection	IP66
Antenna port	4.3-10 or 7/16 optional 1 combined antenna port as standard, max 4 ports
Digital Interface	3 x QSFP+ and 4 x SFP+
Number of bands	up to 6 bands in one enclosure

RF parameters

Output power	+30 dBm per band @ 8 dB Peak-to-average ratio
Noise figure	3 dB typical at max gain
Return loss	> 14 dB
System impedance	50 Ω
Maximum input power	+17 dBm, non destructive

Band	Uplink	Downlink	Operation bandwidth	Composite output power	Technologies
700	703 – 748	758 – 803	45 MHz	+ 30 dBm	LTE, 5G NR
800	832 – 862	791 – 821	30 MHz	+ 30 dBm	LTE, 5G NR
900	880 – 915	925 - 960	35 MHz	+ 30 dBm	GSM, WCDMA, LTE, 5G NR
1800	1710 – 1785	1805 – 1880	75 MHz	+ 30 dBm	GSM, WCDMA, LTE, 5G NR
2100	1920 – 1980	2110 – 2170	60 MHz	+ 30 dBm	WCDMA, LTE, 5G NR
2600	2500 – 2570	2620 – 2690	70 MHz	+ 30 dBm	LTE, 5G NR

Mechanical

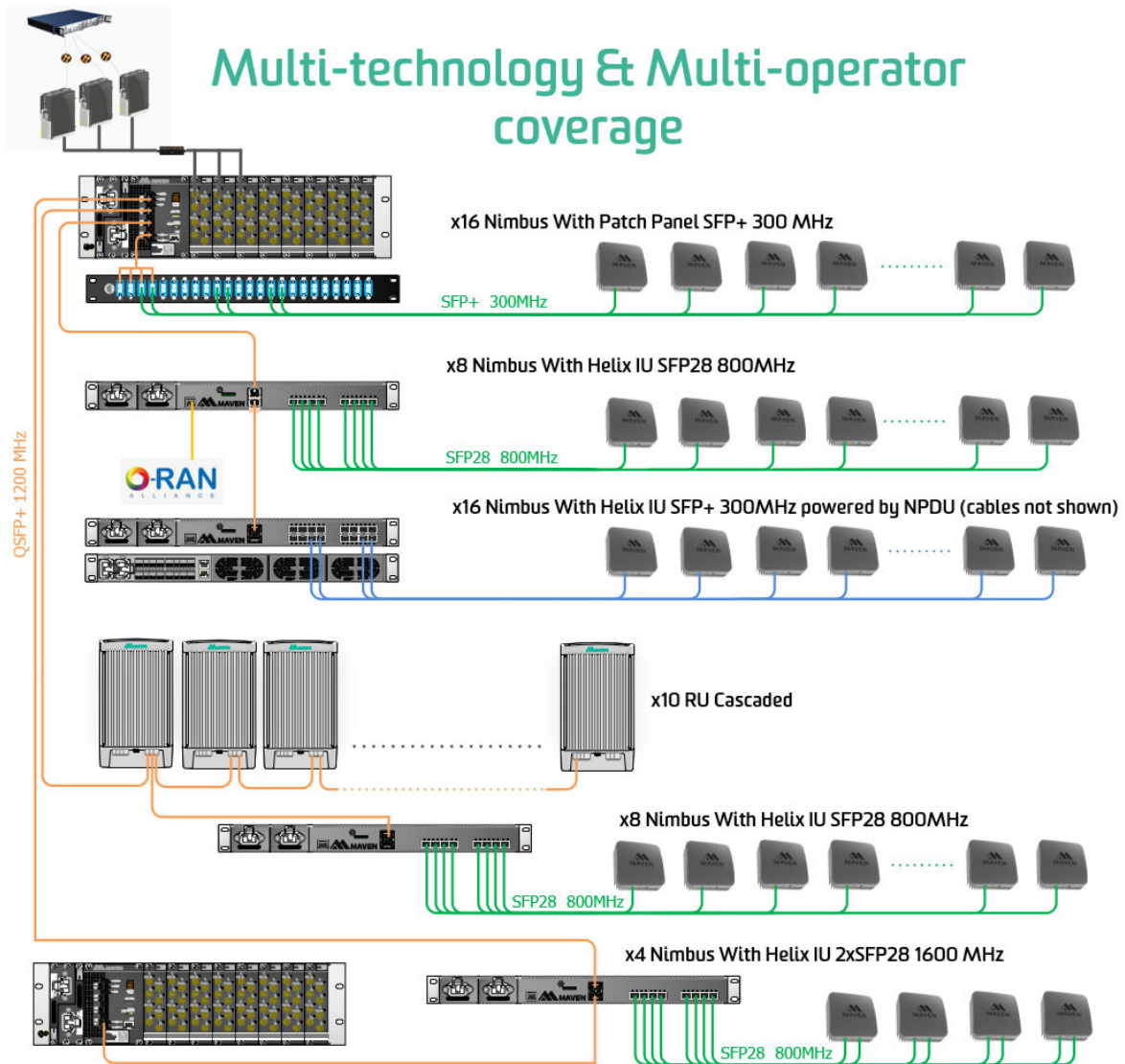
Dimensions (height, width, depth)	670 x 383 x 270 mm
Weight	max 25 kg

Standards & approvals

EMC & safety	Low voltage directive 73/23/EEC
EMC directive 2004/108/EC	RED directive 2014/53/EU

**Thermal dissipation +- 15 %

Multi-technology & Multi-operator coverage



Various frequency combinations in the same enclosure are available. Contact Maven Wireless for more information. All parameters are subject to change.