

# Maven digital DAS PS EMEA-APAC

Stratus high power for Critical Comms

Orion head end unit

Data sheet version 3.2

- 1. Digital Platform**  
CPRI end-to-end.
- 2. Future-proof**  
Add services (such as PS LTE)  
and coverage over time
- 3. Sustainable**  
Passive cooling & lowest power  
consumption.



Maven Wireless offers cutting-edge, end-to-end digital solutions for global wireless coverage. Our products are future-proof, highly efficient, and cost-effective. We're committed to sustainability and passionate about improving lives by ensuring 100% reliable wireless coverage, anywhere in the world.

# Product specification

## Orion head end Unit



### General

<b>Mains power</b>	85 - 264 VAC, redundant, Hot Swappable -72 - -25 VDC, redundant, Hot swappable
<b>Power consumption</b>	100 W fully loaded
<b>Management</b>	Ethernet 10/100 Micro USB Standard USB accessory connector 4 external alarm inputs & 1 external alarm output (optional) Optional 4G modem
<b>Operating temperature</b>	+5 to +45 °C
<b>Band Modules</b>	Up to 2 or 4 PS swappable band modules (and 4 cellular in both cases).  1 duplex/simplex input per band module for UHF/VHF/FM/DAB
<b>System gain</b>	15 to 45 dB in 0.1dB steps
<b>Gain flatness</b>	1 dB pp

### Digital Interface

<b>CPRI Ports</b>	4 x QSFP+ (with option for SFP+ adapter)
<b>Spectrum bandwidth</b>	Up to 1200 MHz RF spectrum per QSFP+, either as a single WDM link or for 300 MHz links.
<b>Single mode fibre</b>	1310 nm band, up to 40 km distance

## Band modules

<b>Connections</b>	1 or 2 RF interfaces, each with a duplex and simplex QMA connection	
<b>RF input range</b>	0 to +30 dBm composite per RF port	
<b>Frequencies</b>	Uplink (MHz)	Downlink(MHz)
	-	87.5-108.0
	138-174	138-174
	-	174-240
	380-385	390-395
	451-456	461-466
	380-470	380-470
	Band 28	Band 28
	806-824	851-869

## Mechanical

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

# Product specification

Stratus high power for  
Critical Comms



## General

<b>Mains power</b>	85 - 264 VAC -72 - -36 VDC (optional)
<b>Power consumption</b>	210 (single band) 250 W (dual band) <sup>1</sup>
<b>Management</b>	Ethernet 10/100/1000 , micro USB, Standard USB accessory connector
<b>Operating temperature</b>	-25 to +55 °C
<b>Ingress Protection</b>	IP66
<b>Antenna port</b>	4.3-10 or 7/16 optional
<b>Digital interface</b>	3 x QSFP+ and 4 x SFP+
<b>Number of bands</b>	Up to 4 bands in one enclosure

## RF parameters

<b>Output power</b>	Varies, depending on band, see table below.
<b>Noise figure</b>	4.5 dB typical at 380 MHz up to 5.5 at 450 MHz
<b>Return loss</b>	> 14 dB
<b>System impedance</b>	50 Ω
<b>Maximum input power</b>	+17 dBm, non destructive

<sup>1</sup> Max RF out (on all bands).

Band	Uplink (MHz)	Downlink (MHz)	Operation Bandwidth	Composite Output power	Technologies
FM	87.5-108		20.5 MHz	+28 dBm	FM
VHF	138-174		36 MHz	+33 dBm	VHF
DAB	174-240		66 MHz	+30 dBm	DAB/DAB+
400	380-470	380-470	5 MHz	+40 dBm	TETRA TMO
400	Other frequencies available on request		5 / 6.5 MHz <sup>2</sup>	+40 dBm	TETRA TMO
448	442.5	448.5	3 MHz	+37 dBm	FM
LTE band 72	451-456	461-466	5 MHz	TBD	PS LTE
700	Band 28	Band 28	45 MHz	+43 dBm	PS-LTE
800	TBD	TBD	TBD	+43 dBm	PS-LTE
800	806-824	851-869	18 MHz <sup>3</sup>	+43 dBm	TETRA TMO

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

## Mechanical

**Dimensions (height, width, depth)** Typical: 670 x 383 x 270 mm  
UHF/VHF: 710 x 383 x 270

**Weight** Max 25 kg

## Standards & approvals

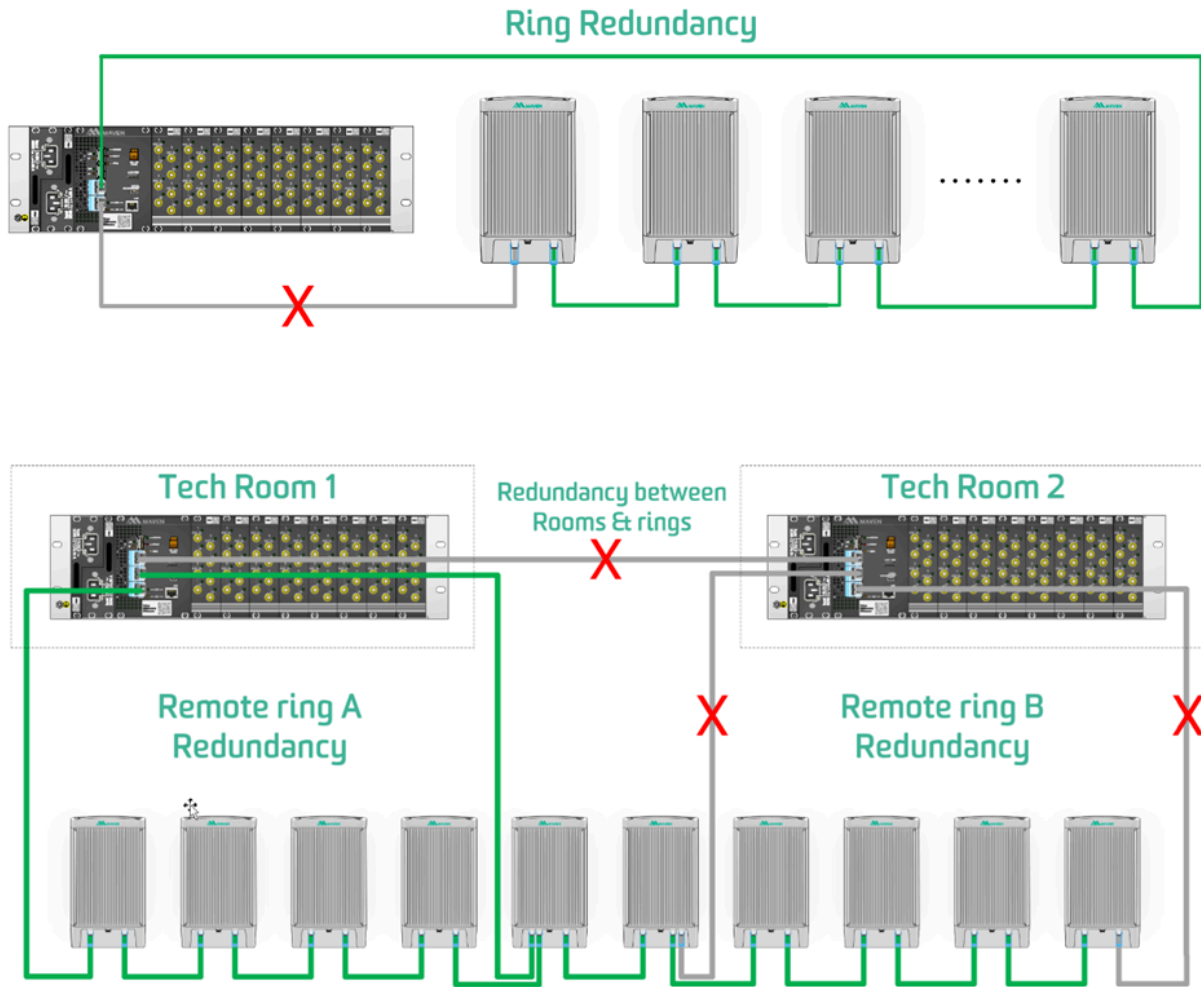
**EMC & Safety** Low voltage directive 73/23/EEC

**EMC directive 2004/108/EC** RED directive 2014/53/EU

<sup>2</sup> DQPSK Typically 5MHz with 10 MHz duplex spacing.

<sup>3</sup> Typical for legacy TETRA 800 systems using DQPSK

## Redundancy examples



Note: All parameters are subject to change.