



CORNING

E62-M3

MID POWER

2T2R Digital Radio
Up to 40dBm Output Power
Support B41

Revision History

Revision Number	Revision Date	Summary of Changes	Author
1.0.0			

Copyright © 2023 Sunwave All rights reserved.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from Sunwave.

All copyright, confidential information, patents, design rights and all other intellectual property rights of whatsoever nature contained herein are and shall remain the sole and exclusive property of Sunwave. The information furnished herein is believed to be accurate and reliable.

However, no responsibility is assumed by Sunwave for its use, or for any infringements of patents or other rights of third parties resulting from its use.

The Sunwave and CrossFire names and logos are trademarks or registered trademarks of Sunwave.

All other trademarks are the property of their respective owners.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 80cm between the radiator & your body.

The socket-outlet shall be easily accessible.

Overview

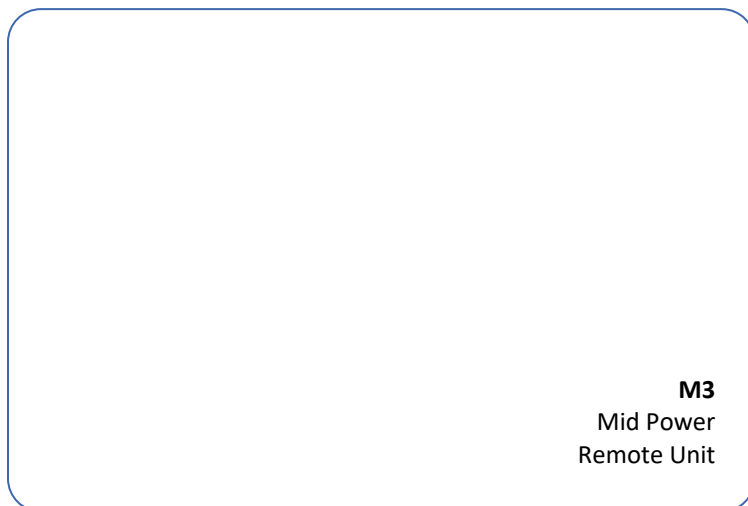
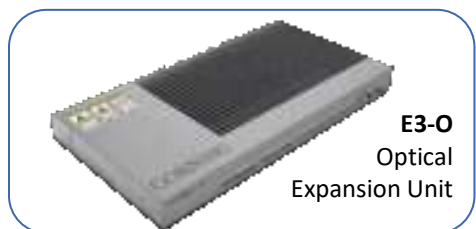
Everon E62-M3 is a digital transport platform dedicated for B41 operation supporting cellular technologies on fiber optic cable using the CPRI protocol. The power amplifier technology adopts Digital Pre-Distortion, allowing for a significant improvement in power consumption compared with analogue technology. This platform is ideal for multi-operator multi-band deployments of cellular services.

Key Features

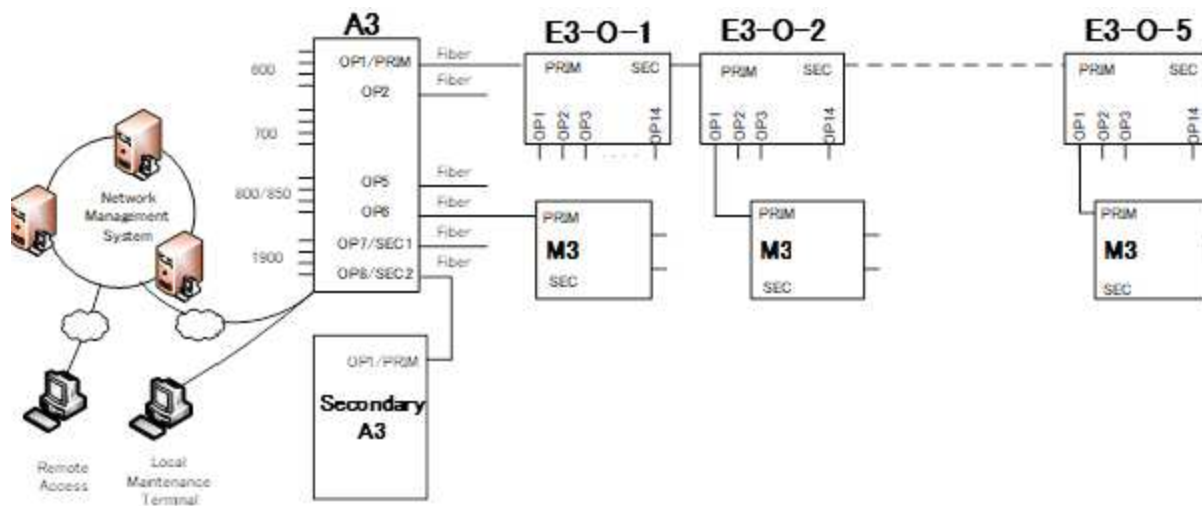
2T2R Digital Radio
Support Full band41 SISO
Single Fiber Link

Up to 40dBm Output Power
Supports External Alarm
5G NR Compliant

System Elements



Block Diagram



Technical Specifications

System				
Maximum RF Bands per Access Unit	4			
Maximum RF Bands per Remote Unit	1			
Maximum Access Units per System	3 (1 x Primary A3 / 2 x Secondary A3)			
Maximum E3s per Primary A3	8			
Maximum M3RUs per E3	14			
Maximum Cascaded Level	6			
Maximum IBW	200MHz, (280M by firmware upgrade)			
Band Selective Mode	≤100MHz, @1MHz step			
Channel Selective Mode	LTE: 5/10/15/20 MHz NR: 5/10/15/20/30/40/50/60/70/80/90/100 MHz			
Fiber transmission Capacity	48 Basic Units			
Filter Bandwidth	≤25M	25<BW≤50M	50<BW≤75M	75<BW≤100M
Basic Units Occupied	1	2	3	4
M3RU DSP Capacity	12 DSP Units per Band			
Filter Bandwidth	≤25M	25<BW≤50M	50<BW≤75M	75<BW≤100M
DSP Units occupied	1	2	4	4
Maximum Carriers Supported per Band	4			
System Delay Adjustment	Up to 80.00μs			
System Delay (A3+E3+M3)	12μs			
VSWR	<1.6			

Supported Configurations		
Configuration	CH1	CH2
B41 MIMO	2496-2690M	2496-2690M

B41 SISO	2496-2690M	NC
----------	------------	----

1. CH1 & CH2 is combined inside M3, only one RF ANT port. Each CH has 37dBm output power.

Forward Path (Downlink)

Output Power per Band	39 ± 2dBm for B41
Maximum Gain	39 ± 3dB for B41
Maximum Input Power	+15dBm (with AGC operating) / 0dBm (without AGC operating)
EVM	<3.5% @ 256 QAM
Manual Attenuation Control	35dB @ 1dB/step (A3: 20dB, M3: 15dB)

Technical Specifications

Reverse Path (Uplink)

Output Power per Band	-11 ± 2dBm for B41
Maximum Gain	39 ± 3dB for B41
Maximum Input Power	-35dBm
Manual Gain Control	35dB @ 1dB/step (AU: 20dB, M3: 15dB)
Noise Figure	6dB@max Gain
IIP3	-22dBm

Interfaces

M3 Antenna Interface	4.3-10 Female
M3 RF coupling port	QMA Female
A3 RF Interface	QMA Female
Optical Connector Type	SFP28, Standard LC
Optical Transmission Rate	24.33024 Gb/s
Optical Fibre Length	10km
Physical Alarms	RJ45 (2x in, 2x out)
Maintenance Interface	Ethernet RJ45

Electrical

Complies with	3GPP TS36.106 3GPP TS25.106
EMC	EN 301489-1 / -50, FCC 47 CFR 1.1307(b), FCC 47 CFR 1.310
Safety	EN 62368-1
Maximum Power Consumption (A3/E3/M3)	60W / 40W / 200W
Power Supply	100-240V AC, 50/60Hz 48VDC ± 20%

Environmental

Mean Time Between Failure (MTBF)	>220,000 hours
Operating Temperature (A3/E3)	-10°C to +50°C / 14°F to +122°F
Operating Temperature (M3)	-40°C to +55°C / -40°F to +131°F
Humidity	0% to 90% (Non-Condensing)
Cooling	Convection
Installation	A3/E3: Wall or 19" Rack M3: Wall, Pole, 19" Rack

Mechanical

A3 (Width / Height / Depth / Weight)	440mm / 88mm / 329mm / 6.5kg, 17.32in / 3.46in / 12.95in / 14.33lb
With package	555mm / 140mm / 535mm / 8.0kg, 21.85in / 7.09in / 21.06in / 17.64lb
E3 (Width / Height / Depth / Weight)	440mm / 44mm / 220mm / 5.0kg, 17.32in / 1.73in / 8.66in / 11.02lb
With package	555mm / 140mm / 370mm / 7.0kg, 21.85in / 7.09in / 14.57in / 15.43lb
M3 (Width / Height / Depth / Weight)	330mm / 126mm / 250mm / 14.0kg, 13.00in / 4.96in / 9.84in / 30.86lb
With package	555mm / 320mm / 430mm / 18.0kg, 21.85in / 12.60in / 16.93in / 39.68lb