CHP Max5000® CORWave™ Forward Transmitters

CHP CORWave II — 1550 nm Multi Wavelength Forward Transmitter

CHP Form Factor, 16 ITU-Optimized Wavelengths, Up to 60 km Reach

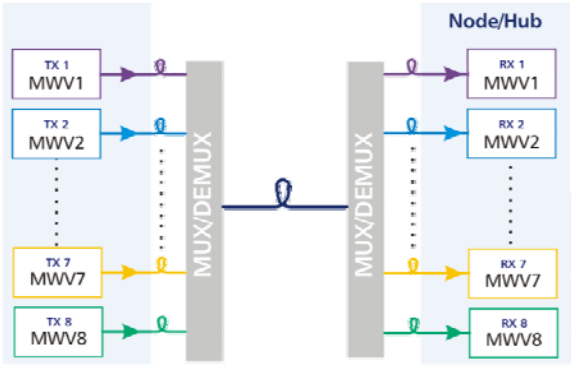
Implementation Requirements for One Fiber Multi Wavelength Applications

Unique Requirements	
Recommended wavelengths (note 1)	Variable: MWV1, MWV2, MWV3, MWV4, MWV5, MWV6, MWV7, MWV8, MWV9, MWVA, MWVB, MWVC, MWVD, MWVE, MWVF, MWVG Fixed: MW01, MW02, MW03, MW04, MW05, MW06, MW07, MW08, MW09, MW0A0, MW0B, MW0C, MW0D, MW0E, MW0F, MW0G
Maximum launch power/wavelength	11 dBm (single wavelength), 11 dBm (4 wavelengths), 10 dBm (8 wavelengths), 7 dBm (16 wavelengths)
Common Requirements	
Analog content	Must use common analog content
Digital content	Must use common digital content below 250 MHz (note 2)
Analog RF input level	16 dBmV/channel (note 4), 14 dBmV/channel (note 4)
Digital RF input level	10 dBmV/channel (note 4), 8 dBmV/channel (note 4)

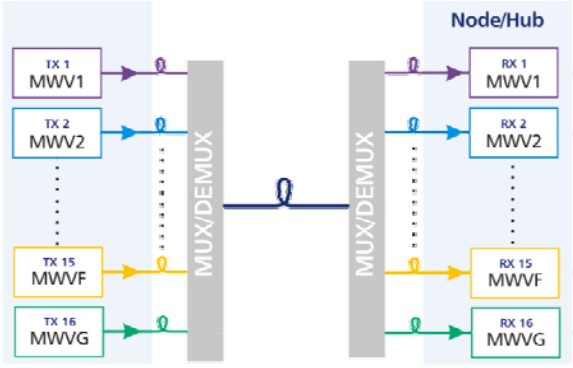
Notes
1. ARRIS recommends MWV1/MW01 as the first wavelength.
2. Unique digitally modulated narrowcast content only permitted above 250 MHz.
3. 30 analog channels, 125 QAM channels (6 dB below analog).
4. 80 analog channels, 75 QAM channels (6 dB below analog).

Applications

The following diagrams depict the typical application for combining eight or sixteen CORWave II wavelengths in forward paths that are multiplexed onto a single fiber with a maximum launch power of 10 dBm per wavelength for eight or 7 dBm/wavelength for 16. This facilitates immediate forward path segmentation and reduces the node service group size. Follow the implementation requirements listed in the table on the next page to ensure a successful implementation. Contact ARRIS for implementation details and solutions for other applications.



8 wavelengths – 40 km



16 wavelengths – 20 km

Technical Specification

CHP Max5000® CORWave ™ II 1550 nm Multi Wavelength Forward Transmitter

General Specifications

Optical	
Wavelength	1525 to 1565 nm, 16 optimized ITU wavelengths
Output Power	Variable: 16 dBm, variable (±1.0 dB) Fixed: 9.5 dBm, (±0.5 dB) fixed output
RF	
Operating Bandwidth	45 to1002 MHz
Channel Loading	80 analog channels, 75 QAM channels (6 dB below analog) 30 analog channels, 125 QAM channels (6 dB below analog) 155 QAM channels, 6-MHz QAM channels
Input RF Power:	14 dBmV for 80 analog channels with 75 QAM channels @ -6dB 16 dBmV for 30 analog carriers with 125 QAM channels @ -6dB 12 dBmV for 155 QAM channels
RF Input Impedance:	75Ω
Flatness	±1.0 dB
Test point	-20 ± 1.0 dB
Typical Link Performance	
CCNR	50 dB for 80 analog channels, 75 QAM channels (6 dB below analog) (see notes 1, 2) 50 dB 30 analog channels, 125 QAM channels (6 dB below analog) (see notes 2, 3)
MER	38 dB (for all three cases) (see notes 1, 4)
BER	1E-8 (Annex B test) (for all three cases)
CSO	–58 dBc for 80 analog channels, 75 QAM channels (6 dB below analog) (see notes 1,2) –60 dBc for 30 analog channels, 125 QAM channels (6 dB below analog) (see notes 2, 3)
CTB	–58 dBc for 80 analog channels, 75 QAM channels (6 dB below analog) (see notes 1, 2) –60 dBc 30 analog channels, 125 QAM channels (6 dB below analog) (see notes 2, 3)
Electrical/Environmental/Mechanical	
Power Consumption	27 W, max.
Optical Connector	SC/APC
RF Connector	F-type
Control Interface	CORView Enterprise Element Manager Software or CORView Lite Element Manager Software
Dimensions, in (cm) W x H x D	1.25 x 3.4 x 18.5 (3.2 x 8.7 x 47.0)
Weight, lbs (kg)	2.75 (1.24)
Temperature, C (F), Operational	0 to 50 (32 – 122)
Temperature, C (F), Storage	-20 to 60 (-4 to 140)
Humidity	85%, noncondensing, max.

Notes
1. CNR, MER, and CSO/CTB may degrade up to 0.5, 0.5, and 2.0 dB, respectively, over full operating temperature range and overall polarization states.
2. Link performance based on 8 wavelengths over 40km or 16 wavelengths over 20 km, including optical passives, at the receiver, 80 NTSC channels measured according to standard procedures, and 0 dBm into the receiver.
3. Link performance based on 8 wavelengths over 40 km or 16 wavelengths over 20 km, including optical passives, at the receiver, 30 NTSC channels measured according to standard procedures, and 0 dBm into the receiver.
4. Link performance based on 8 wavelengths over 40 km or 16 wavelengths over 20 km, including optical passives, at the receiver, measured with respect to ITU Annex B.

Ordering Information

To configure a product that meets your specific needs, or for any questions, please contact your ARRIS Sales Professional. You may also use our Product Wizard, located at **support.arrisi.com** (User ID and password required). If you do not have a user ID and password or have forgotten your password, please use the Sign In Help section indicated.

Specifications are subject to change without notice.

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