



ACI Communications, Inc. 

ACION 8000 Series
A8KRT3 CWDM Return
Optical Transmitter

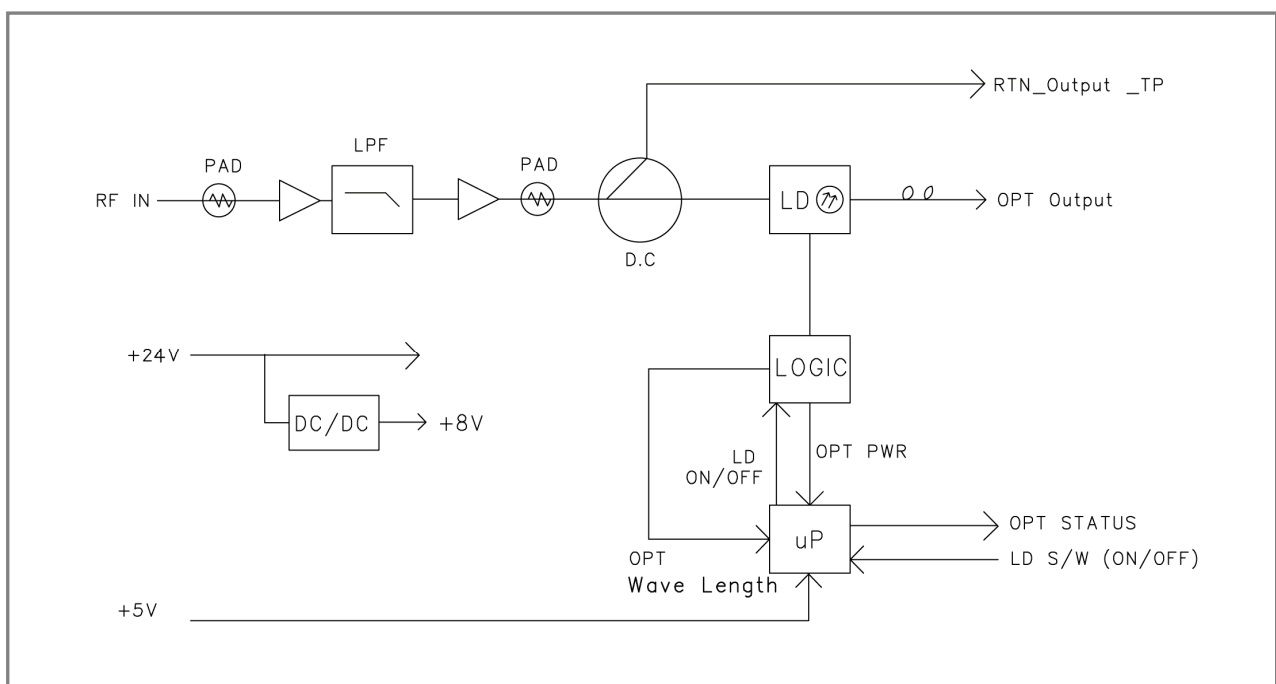
Overview

The A8KRT3 is an advanced CWDM Return Optical Transmitter designed for HFC network, with high reliability, scalability, wide operation frequency range (5 to 200MHz) and cost-effectiveness. The A8KRT3 CWDM Return Transmitter is available at wavelengths from 1471 to 1611 nm with 20nm interval. In multi wavelength CWDM application, the capacity of the HFC network can be increased substantially without installing new optical fiber. The module is hot-swappable with integrated management through A8KPCM and remote management by HMS SNMP.

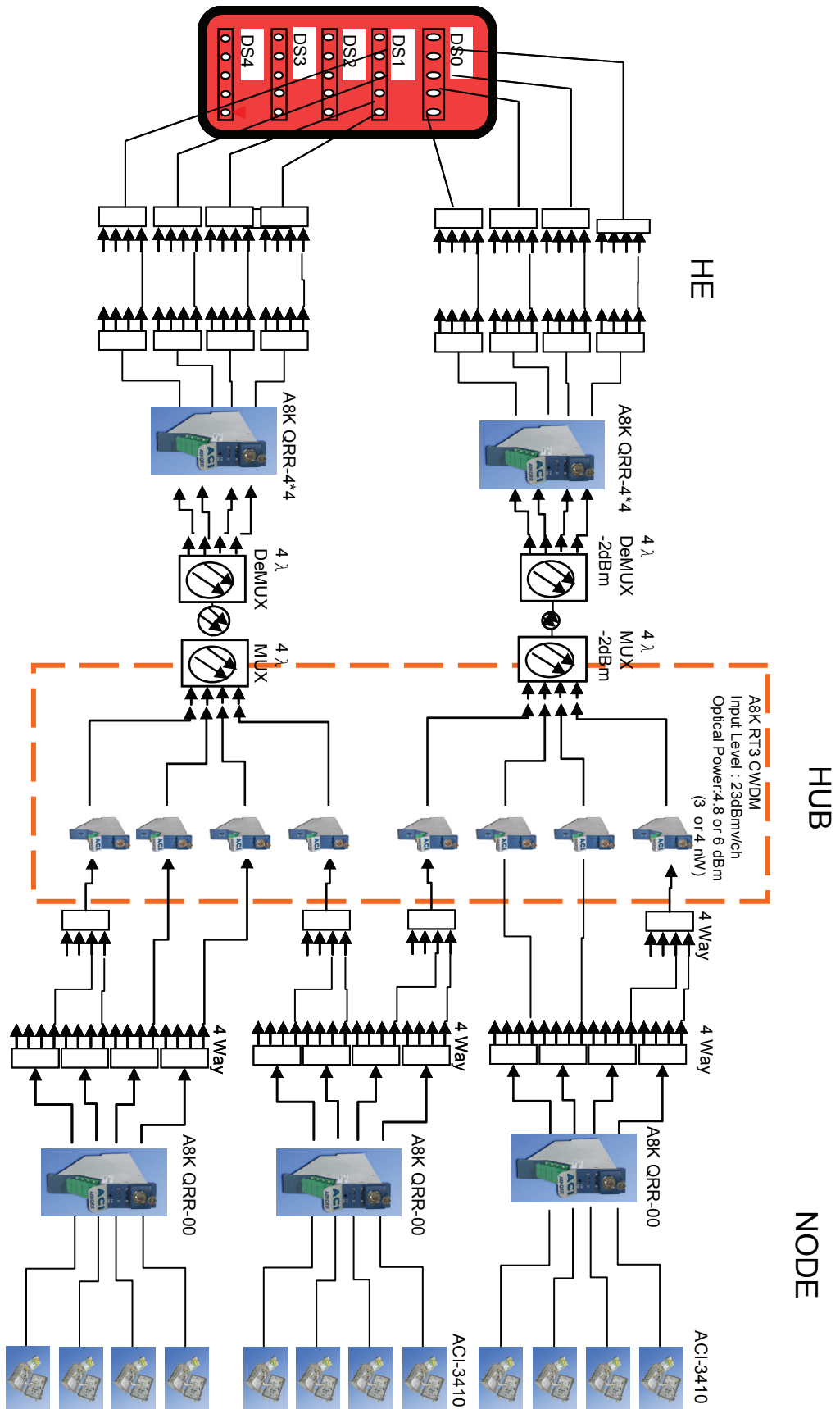
Features

- Bandwidth 5MHz~200MHz.
- CWDM ITU Grid wavelengths 1471~1611nm.
- Hot-swappable.
- Remote monitor and control function by HMS SNMP.
- RF front-panel test point.
- Optical Connector: SC/APC with shutter (standard), FC/APC or E2000/APC (optional).

Block Diagram



Application



Specifications

| ACI Communications, Inc. | | ACION8000 Series A8KRT3 CWDM Return Optical Transmitter | | |
|--|-------------------|--|--|---------------------------|
| PARAMETERS | CONDITIONS | UNITS | SPECIFICATION | NOTES |
| Optical Specification | | | | |
| Laser Type | | | Uncooled DFB | |
| Optical Wavelength | @room temperature | nm | 1471, 1491, 1511, 1531 1551, 1571, 1591, 1611 | ±3 nm CWDM |
| Connector Type | | | SC/APC (standard), FC/APC, E2000/APC (optional) | |
| Optical Power | | dBm | 4.8 or 6 | Select when placing order |
| | | mW | 3 or 4 | |
| RF Parameters | | | | |
| Operating Bandwidth | | MHz | 5 to 200 | |
| RF Input Return Loss | | dB | -16 | |
| RF Input Level | | dBmV/ch | 23 | |
| Flatness (Peak-to-Valley) | 5 to 200MHz | dB | ± 0.5 | |
| Test Point | | dB | 0 ± 0.5 | Compared with RF Input |
| Distortion Performance | | | | |
| OMI | | % | 10@23 dBmV | |
| Composite Second Order (CSO) | | dBc | < -55 | ★1 |
| Composite Triple Best (CTB) | | dBc | < -53 | ★1 |
| CNR | | dBc | > 46 | ★1 |
| Electrical/Environmental/Mechanical | | | | |
| RF Connector Type | Rear Panel | | F type female | |
| Module Width | | slot | 1 | |
| Dimensions | D×H×W | in. | 16.1 x 5.0 x 1.0 | |
| | | mm | 410.0 x 127.0 x 25.9 | |
| Operating Temperature | | °F (°C) | 32 to 122 (0 to 50) | |
| Storage Temperature | | °F (°C) | -40 to 149 (-40 to 65) | |
| Storage Relative Humidity | Non-condensing | % | 0 to 90 | |
| Power Consumption | Max. | W | 6.2 | |

★1: Test with 4 tones, -10dBm Optical Input@A8KQRR.

Ordering Matrix

A8KRT3 Configuration Sheet

Customer: _____

Created By: _____

ORDERING MATRIX

2010/11/18

| | | | | | | | | | | |
|--------------------|---------------|---|---|---|---|---|---|---|---|---|
| Position | | | 1 | 2 | | 3 | 4 | | 5 | 6 |
| PART NUMBER | A8KRT3 | — | | | — | | | — | | |

1-2. OUTPUT POWER

| | | |
|---|---|---------------------------|
| 0 | 4 | = 4.8 dBm (3mW)(standard) |
| 0 | 6 | = 6 dBm (4mW) |

3-4. Connector

| | | |
|---|---|------------------------------------|
| S | C | = SC / APC with shutter (standard) |
| F | C | = FC / APC |
| E | C | = E2000 / APC |

5-6. Wavelength

| | | |
|---|---|-----------|
| 0 | 1 | = 1471 nm |
| 0 | 2 | = 1491 nm |
| 0 | 3 | = 1511 nm |
| 0 | 4 | = 1531 nm |
| 0 | 5 | = 1551 nm |
| 0 | 6 | = 1571 nm |
| 0 | 7 | = 1591 nm |
| 0 | 8 | = 1611 nm |

NOTES:

ACI Communications, Inc. reserves the right to discontinue the manufacture or change the specifications without prior notice on any parts illustrated in the data sheet.

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