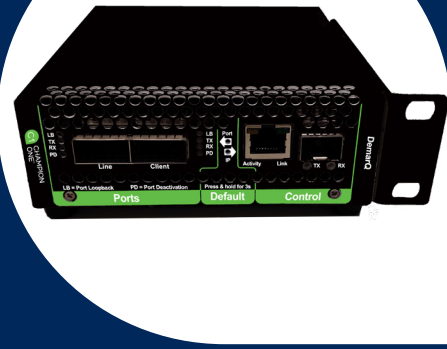# 40/100Gbps DemarQ™ Media Converter

Champion ONE's DemarQ is a compact, versatile device can operate as a 40G/100G media converter, a demarcation device at the customer premise, a midspan regen point, or a reach extension solution anywhere in the network. It can be deployed as a standalone device, or beside a 2-channel mux for remote management.
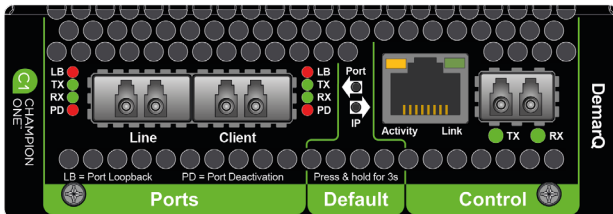
Key Features Summary

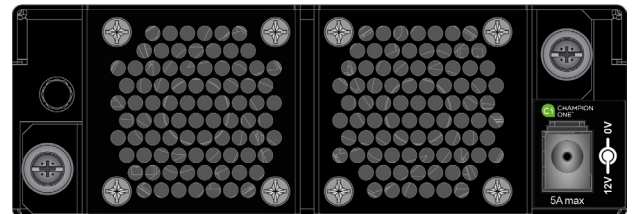| Feature	Description
Conversion	Optical-Electrical-Optical (O-E-O) conversion occurs between two QSFP28 / QSFP+ transceiver slots.
Interfaces	As the QSFP slots can accept any MSA compliant transceiver, the device offers a wide flexibility in regards to interfacing (e.g. SR4, LR4, ER4 lite, ZR4, etc.).
OSI Transparency	The conversion between the two QSFP28 / QSFP+ slots is a Layer 1 conversion, and is therefore transparent to all higher levels.
OTU4 Support	The DemarQ supports OTU4 (4x28G).
FEC Transparency	The DemarQ is transparent for signals with Forward Error Correction.
40G Support	The DemarQ supports 40G and can be equipped with MSA-compliant QSFP+ transceiver.
Low Latency	Apart from regenerating the signals, the DemarQ leaves the signals untouched for very low latency
Loopback	For a simple check of the transmission connection, the QSFP28 ports can be set into loopback mode
Plug & Play Operation	The operation of the DemarQ is plug-and-play operational; no configuration via software required.
Small Form Factor	The dimensions of the device are 124mm wide, 164mm deep and 1RU high (excluding transceivers).
Redundant Cooling	The two fans are fully redundant to each other; one fan alone is capable of cooling the device. The fans are also in-service replaceable.
Control Interfaces	The DemarQ has two control interfaces: an SFP interface for remote monitoring and control and an RJ45 for service access.
Intuitive WebGUI	For monitoring and control purposes, the DemarQ comes with an intuitive WebGUI application.
SNMP	To monitor and control the DemarQ remotely, the DemarQ supports SNMP.

Technical Specifications

Parameter	Value
Optical Interface	2x QSFP28 / QSFP+ ports Support MSA-compatible QSFP28 / QSFP+ LED Status indication per slot
Management Interface	1x SFP port Supports MSA compatible SFP up to 1Gb LED Status indication
Service Interface	1x RJ45 port 10/100Mb
Local Control	1x Push Button to Set Default of QSFP28 Ports 1x Push Button to Set Default of Management Ports
Remote Control	WebUI for Monitoring and Control SNMP
Power Supply	Coaxial power connector, 12VDC / 5A
Dimensions (WxDxH)	124mm x 164mm x 43mm (4.88" x 6.46" x 1.7") (excluding transceivers)
Weight	847g (29.9oz) (excluding transceivers)
Temperature Range	Operating: 0 to 50°C (32 to 122°F) Storage: -40 to 85°C (-40 to 185°F) Non-condensing

Front and Back Diagrams

Front View

Back View

Optional DemarQ MiniMux

The optional DemarQ MiniMux is an optical multiplexer specifically designed to combine the line and control ports onto a single pair of fibers. To do this, the SFP in the control port needs to have a 1550nm wavelength.

Ordering Information

C1 Part Number	Description
FMC-100GQQ-AC	DemarQ 40G/100G QSFP to QSFP Media Converter, AC Power (includes all required power supplies and mounting accessories)
FMC-100GQQ-MUX	1310/1550 Mux for DemarQ

Champion ONE offers a full range of MSA-compliant QSFP+ and QSFP28 optical transceivers for use with the DemarQ. Contact your Champion ONE sales representative or visit **www.championone.com** for more information.

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