

Välitalontie 83 C, FI-00660 Helsinki, Finland

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# VME-FOUT-12 12-Way VME Fan-Out cPCI-FOUT-12 12-Way cPCI Fan-Out

### **Technical Reference**

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#### Micro-Research Finland Oy

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# Introduction

The main function of the fan-out modules is to distribute the event stream generated by an event generator to a network of event receivers in star configuration. The fan-outs are available in VME and cPCI form-factor.

Main features include:

- Small form factor pluggable (SFP) transceivers with LC connectors, by default short wavelength (850 nm) transceivers for multimode fibre are provided.
- 6U 4 HP module which only takes power from the host bus

The 12-way fan-out receives the optical event signal through a fibre connected to port 1 RX. In the SFP transceiver this signal is converted to a differential electrical signal which is fanned out to all twelve SFPs. Here the differential electrical signal is converted to an optical signal and sent out through a fibre.



Figure 1: FOUT-12 block diagram

#### **FOUT-12 Front Panel**

The front panel of the 12 way fan-out is shown in Figure 2. The front panel shows twelve SFP transceivers with two LEDs on top of each transceiver. Port 1 with the RX input is on the right hand side.



#### Figure 2: FOUT-7 Front Panel

The LEDs on top of each transceiver have following functionality:

Port	Left LED	Right LED
1 (right hand side)	off: transmitter OK	green: RX signal detected
	on (red): transmitter FAIL	red: no RX signal

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2 - 12	off: transmitter OK	off: transceiver not plugged in
	on (red): transmitter FAIL	on (green): transceiver plugged in

#### **Power Sequencing/Power Consumption**

The fan-out boards have been designed hot-swappable with crates supporting hot-swapping e.g. VME64x. Power sequencing is controlled by the handle switch located in the upper/left handle.

Supply Voltage	Power Consumption
+5 VDC	approx. 20 W