



VRM-AMC-8560-xE1/T1/J1

Product Datasheet

Overview and Purpose:

The **VRM-AMC-8560-xE1/T1/J1** is a single width, double height Advanced Mezzanine Card (AMC) providing access to E1/T1/J1 interfaces in next generation systems based on the AMC or ATCA standards. The **VRM-AMC-8560-xE1/T1/J1** is targeted at telecom applications with extensive need for a high aggregation of multiple E1/T1/J1 interfaces combined with access to switched networks based on high bandwidth Ethernet. The module has been optimized to process standard telecom signalling protocols like SS7 as well as special payload handling algorithms.

CPU and Memory:

The **VRM-AMC-8560-xE1/T1/J1** is equipped with the extremely powerful Freescale Power QUICC III MPC8560. This network processor operates at core frequencies from 667MHz up to 1GHz. The **VRM-AMC-8560-xE1/T1/J1** provides 128MB DDR SDRAM and 32MB FLASH memory.

T1/J1/E1 Access:

The octal long/short haul framer 82P2288 from IDT provides access to eight E1/T1/J1 lines at the front panel. For T1/J1 framing standards Super Frame (SF), Extended Super Frame (ESF) T1 Digital Multiplexer (DM,T1 only) and Switch Line Carrier-96 (SLC-96, T1 only), for E1 G.704 and G.706 (CRC-4 multiframe) are supported.

TDM and I-TDM Interface:

The E1/T1/J1 framer interfaces to the onboard timeslot interchanger (TSI) chipset. The TSI as well as the TDM-to-iTDM bridge are incorporated in a Cyclone II FPGA from Altera. The TSI allows flexible routing as well as multicasting of 64kbps timeslots between the various E1/T1/J1 streams. The TDM-to-iTDM bridge converts the TDM oriented bit stream into Ethernet packets and vice versa. The Ethernet packets are sent and received via a 1000BaseT-BX Ethernet interface. In addition to the i-TDM interface, as a breaking through feature of the **VRM-AMC-8560-xE1/T1/J1**, the TSI offers an optional 32Mhz clocked H.110-like TDM backplane interface on the AMC extended connector.

LAN Interface:

Beside the 1000BaseT Ethernet interface used for I-TDM, the **VRM-AMC-8560-xE1/T1/J1** offers two more 1000BaseT Ethernet ports: one at the front panel for local network access and another one at the common options region of the AMC connector as a 1000BASET-BX Type P Control Path.

Rear I/O Access:

For customers preferring to use rear I/O with the **VRM-AMC-8560-xE1/T1/J1**, we offer E1/T1/J1 access by a rear transition module utilizing the user I/O pins of the extended options region of the AMC connector.

PCIe Interface and Compliance:

4 lanes ,PICMG AMC.1 R1.0

IPMI and Compliance:

PICMG AMC.0 R1.0 , PICMG 2.9 R1.0

I-TDM and Compliance:

GigEth at common options region PICMG SFP.1 R1.0

TDM (option):

H.110 like 32MHz clocked TDM interface at extended option region

Networking:

One GigEth at front panel, another GigEth at common options region (type P control path)

E1/T1/J1 interface:

Eight E1/T1/J1 at front panel, clock distribution via clock region at AMC connector or via rear transition module

Indicator LEDs:

4 standard AMC LEDs + two bicolor LEDs per RJ-45 at front panel

Operating System Support:

OK-1, VxWorks, LINUX



V Rose
Microsystems, Inc.

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Applications:

- High density multiplexers, multi-service switches, edge routers and digital modems
- Access devices and DSLAMs
- Digital access cross-connect systems
- VoIP/VoP gateways and routers
- 2.5 and 3G network equipment

Block Diagram: