



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# PM4358 COMET OCTAL

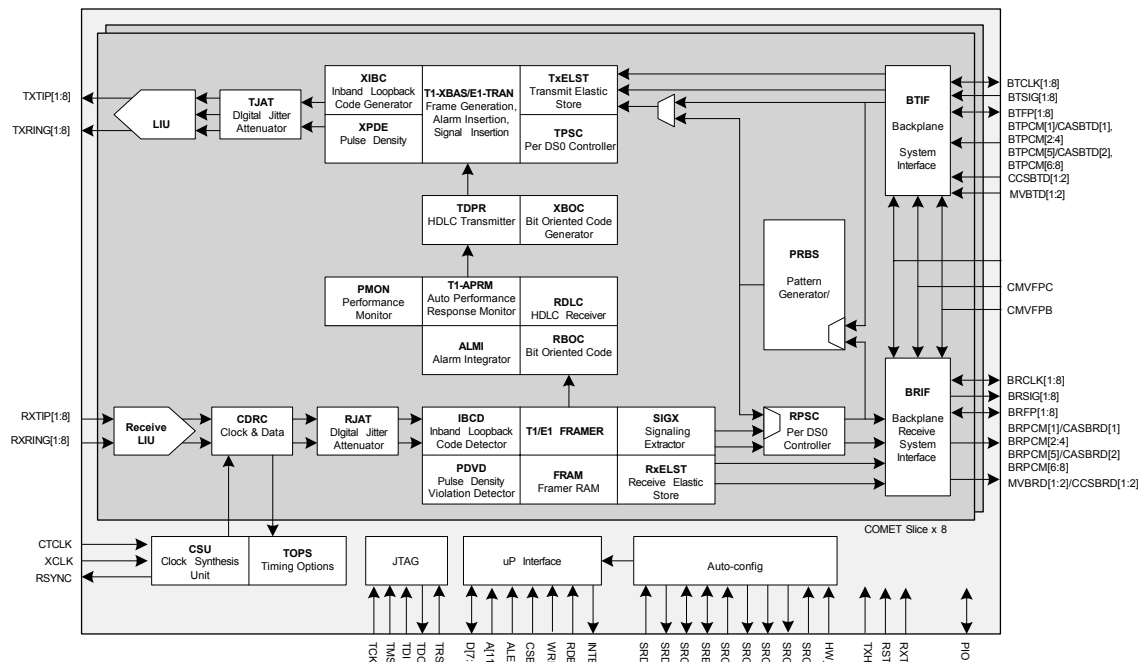
## 8-Channel Combined E1/T1/J1 Transceiver/Framer

Released  
Product Brief

### PRODUCT HIGHLIGHTS

- Programmable integrated termination: T1 100Ω, J1 110Ω, E1 120Ω, E1 75Ω.
- Internal support for redundancy (Y-cable) applications.
- Small footprint 256-pin fine pitch CABGA (17 mm by 17 mm) package.
- Low power dissipation of 165 mW per channel.
- 100% pin and software compatible with PM4359 COMET TETRA, software compatible with PM4351 COMET and PM4354 COMET QUAD.
- Software selectable between T1/J1 and E1 operation on a per device basis.
- Provides digitally programmable longhaul and shorthaul pulse templates and line build out.
- Meets or exceeds T1/J1 and E1 shorthaul and longhaul network access specifications including ANSI T1.102, T1.403, T1.408, AT&T TR 62411, ITU-T G.703, G.704 as well as ETSI 300-011, CTR-4, CTR-12 and CTR-13.
- Provides an 8-bit microprocessor bus interface or SPI compatible hardware only interface for configuration, control, and status monitoring.
- Provides transmit and receive jitter attenuation.
- Provides eight full-featured HDLC controllers, each with 128-byte transmit and receive FIFO buffers.
- Provides a two-frame payload slip buffer to allow independent backplane and line timing.
- Automatically generates and transmits DS-1 performance report messages to ANSI T1.231 and ANSI T1.408 specifications.
- Provides PRBS generators and detectors on each tributary for error testing at DS-1, E1 and N x 64 Kbit/s rates as recommended in ITU-T 0.151 and 0.152.
- Provides encoding and decoding of B8ZS, HDB3 and AMI line codes.
- Provides receive equalization, clock recovery and line performance monitoring.
- Uses line rate system clock.
- Provides an IEEE P1149.1 (JTAG) compliant test access port (TAP) and controller for boundary scan test.
- Implemented in a low power 1.8/3.3 V CMOS technology.
- Provides a -40 °C to +85 °C industrial temperature operating range.

### BLOCK





## RECEIVER

- Typical signal recovery of up to -43 dB at 1024 kHz (E1) and up to -44 dB at 772 kHz (T1/J1).
- Guaranteed minimum signal recovery of -36 dB at 1024 kHz (E1) and -36 dB at 772 kHz (T1/J1) using PIC-22 gauge cable emulation.
- Frames to DSX/DS-1 signals in SF, and ESF formats.
- Frames to ITU-T G.704 basic and CRC-4 multiframe formatted E1 signals. The framing procedures are consistent with ITU-T G.706 specifications.
- Frames to TTC JT-G704 multiframe formatted J1 signals. Supports the alternate CRC-6 calculation for Japanese applications. Frames in the presence of and detects the Japanese yellow alarm.
- Tolerates more than 0.4 UI peak-to-peak, high frequency jitter as required by AT&T TR 62411 and Bellcore TR-TSY-000170.
- Provides programmable in-band loopback activate and deactivate code detection.
- Programmable internal termination.
- Provides diagnostic, line and per-DS0 payload loopbacks.
- Extracts up to three HDLC links to an H-MVIP Bus to support the D-channel, for ISDN Primary Rate Interfaces, and the C-channels, for V5.1/V5.2 interfaces. Detects the V5.2 link identification signal.

## TRANSMITTER

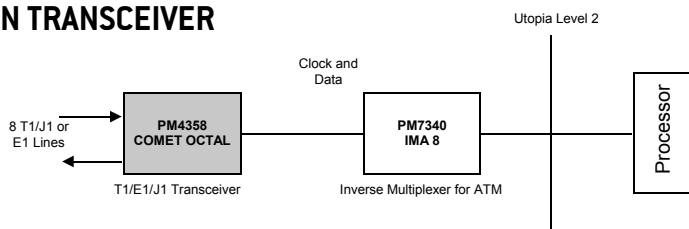
- Generates DSX-1 shorthand and DS-1 longhaul pulses with programmable pulse shape compatible with AT&T, ANSI and ITU requirements.
- Generates E1 pulses compliant to G.703 recommendations.
- Supports line side protection or redundancy applications.

- Provides a digital phase locked loop for generation of a low jitter transmit clock complying with all jitter attenuation, jitter transfer and residual jitter specifications of AT&T TR 62411 and ETSI CTR 12 and CTR 13.
- Provides a FIFO buffer for jitter attenuation and rate conversion in the transmit path.
- Supports unframed mode and framing bit, CRC, or data link by-pass.
- Allows insertion of framed or unframed in-band loopback code sequences.
- Allows insertion of a data link in ESF mode. Optionally inserts a datalink in the E1 national use bits.
- Inserts, from an H-MVIP bus, up to three HDLC links to support the D-channel, for ISDN Primary Rate Interfaces, and the C-channels, for V5.1/V5.2 interfaces.
- Transmits TTC JT-G704 multiframe formatted J1 signals. Supports the alternate ESF CRC-6 calculation for Japanese applications.
- Supports transmission of the alarm indication signal (AIS) and the yellow alarm signal. Supports Japanese yellow alarm generation.
- Provides ESF bit-oriented code generation.

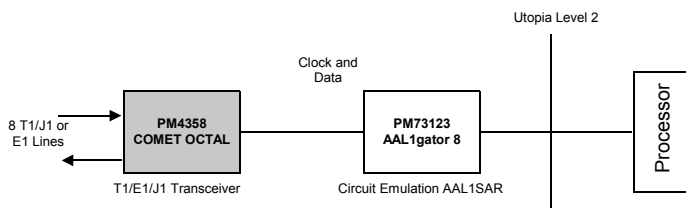
## APPLICATIONS

- Wireless Base Transceiver Station and Digital Loop Carrier (DLCs).
- Enterprise Router.
- DSLAM.
- APON Optical Network Unit (ONU).
- Integrated Access Device (IAD).
- Voice Gateway.
- Channel and Data Service Units (CSU/DSU).
- Digital Private Branch Exchanges (PBX).
- Test Equipment.

## WIRELESS BASESTATION TRANSCIVER



## LEASED LINE CIRCUIT EMULATION



Corporate Head Office:  
PMC-Sierra, Inc.  
Mission Towers One  
3975 Freedom Circle  
Santa Clara, CA, 95054, U.S.A.  
Tel: 1.408.239.8000  
Fax: 1.408.492.1157

Operations Head Office:  
PMC-Sierra, Inc.  
100-2700 Production Way  
Burnaby, BC V5A 4X1 Canada  
Tel: 1.604.415.6000  
Fax: 1.604.415.6200

PMC-2050897 [R4] © Copyright PMC-Sierra, Inc. 2006. All rights reserved. For a complete list of PMC-Sierra's trademarks, visit [www.pmc-sierra.com/legal/](http://www.pmc-sierra.com/legal/). Other product and company names mentioned herein may be the trademarks of their respective owners. For corporate information, send email to: [info@pmc-sierra.com](mailto:info@pmc-sierra.com). All product documentation is available on our web site at: [www.pmc-sierra.com](http://www.pmc-sierra.com).

**PMC**  
PMC - SIERRA