DP83848M/T/H PHYTER® Small Form Factor
10/100 Single Port Physical Layer Products

Small Package, Big Performance for Commercial, Industrial, and Extreme Applications

The PHYTER® commercial DP83848M transceiver addresses the quality, reliability, and cost requirements of embedded developers networking their devices for the home or high end peripherals.

The PHYTER industrial DP83848T (-40°C to 85°C), and extreme DP83848H (-40°C to 125°C), transceivers address the quality and system reliability needs of developers implementing Ethernet in harsh environments. Both devices have IEEE 802.3 specification compliance guaranteed by test on every unit shipped.

These three new single port 10/100 physical layer Ethernet transceivers address the high quality, high reliability, and small form factor required for rugged operation in space-sensitive and thermally-demanding environments.

These devices are ideally suited for motor control, building automation, automotive, peripheral, and test equipment applications.

Target Applications

- Industrial controls
- High-end peripherals
- Building automation
- Motor control
- Transportation

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<th>Family Features</th>
<th>Benefits</th>
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<tr>
<td>Auto-MDIX</td>
<td>Automatically detects and corrects for straight or cross-over cables</td>
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<tr>
<td>Low power &lt;270 mW</td>
<td>Saves on battery life and eases thermal management</td>
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<tr>
<td>Error free operation up to 137m</td>
<td>Dependable network performance over long distance</td>
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<td>25 MHz Clock output</td>
<td>Reduces system clocking complexity and cost</td>
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<tr>
<td>Flexible power management</td>
<td>Extends system life and reduces overall system power consumption</td>
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<td>25 MHz MDIO</td>
<td>Minimizes system configuration time</td>
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<tr>
<td>MII</td>
<td>Industry standard PHY interface</td>
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<tr>
<td>LLP-40</td>
<td>Saves board space for designs requiring a small form factor</td>
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<tr>
<td>Superior 4.0 kV ESD protection (HBM)</td>
<td>Robust operation in harsh environments</td>
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National Semiconductor
The Sight & Sound of Information
PHYTER® Ethernet Integrity Software Utility

The Ethernet Integrity Software Utility is an extensive Ethernet support and diagnostics tool, allowing complete PHY access for link status, device configuration, and network status monitoring. This software utility provides a unique interface for system development, debug, and diagnostic work as well as automated script generation for system manufacturing and testing. This software is available as a FREE download on the web at ethernet.national.com.

Selected Processors and FPGAs Available with Integrated 10/100 MAC

Freescale® ColdFire® Processors
- MCF5207
- MCF5208
- MCF523x
- MCF527x
- MCF528x (e.g. MCF5282)
- MC5328/9
- MCF537x
- MCF547x
- MCF548x
- MCF7113/16/19

Freescale® PowerQUICC™ Processors
- MPC68xx
- MPC8xx (selected parts)
- MPC82xx
- MPC83xx
- MPC85xx
- MPC52xx

Xilinx® FPGA Families
- Virtex™-4 SX/LX/FX
- Virtex-II and Virtex-II Pro
- Virtex
- Spartan™-3/IIE/II

Altera® FPGA Families
- APEX™ 20K
- Stratix® and Stratix II
- Stratix GX and Stratix II GX
- Cyclone™ and Cyclone II
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