

Miniature Ethernet Acquisition Module



Applications

- CAIS applications
- Distributed systems
- Timestamping data
- Ethernet bus monitor
- Data selection from Ethernet frames

Features

- Single channel 10/100/1000 BASE-T Ethernet acquisition module which interfaces to the Ethernet in a promiscuous mode
- Contains up to 254 independent filters for selecting specific Ethernet packet data from specific Ethernet frames for inclusion into the stack's Chapter 4 PCM output
- Filters sort the Ethernet packets using 8 – 16-bit words. Each 16-bit word can be located at any location within the Ethernet frame
- Each filter is triple buffered for coherency
- Receives all standard Ethernet frames up to 1522 bytes. Does not support jumbo frames or frames over 1522 bytes
- Supports ARP and PAUSE protocols in IPv4 format
- Supports IPv6 format in user defined mode
- ARP and PAUSE frames can be separately configured to be included or dropped from filter searches
- Bad Ethernet packets can be programmed to be discarded or saved
- Multiple METI-301G-1 modules can be placed within a single stack

Description

The METI-301G-1 is a member of TTC's Miniature Stack Encoder family of data acquisition instruments. This module contains 255 individual filters. 254 of these filters are general purpose filters which scan incoming Ethernet frames looking for filter matches. One filter is a No Match filter which stores Ethernet packets that do not match any of the enabled general purpose filter's programmed settings. The No Match filter can be enabled or disabled independently. All general purpose filters search incoming Ethernet packets using a common group of up to 8 – 16 bit words. Any of these 8 words can be independently located anywhere within the incoming Ethernet frames. The general purpose filters all support a programmable mask which allows any of the up to 16 Bytes in the programmed search fields to be ignored. All Ethernet frames found to be a match to any specific filter's programmed settings are individually triple buffered for coherency. All stored Ethernet frames include a time stamp to indicate when that frame entered the module's input connector. Once an Ethernet frame is stored into any filter's frame buffer, all of its data is available for data extraction into the stack's Chapter 4 PCM output stream. Each filter has its own buffer status words which indicate various operational conditions of the buffer. The METI-301G-1 includes three general purpose inputs. The real-time input state of these inputs is available by reading the status word of any filter. The module also includes three optically isolated outputs that are used to monitor the status of the Ethernet connection.

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METI-301G Datasheet

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CAIS
Compatible



Management
System
AS9100C
ISO 9001:2008

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