

Cheetah CMD-N HARMONIC TRANSPONDER

EMBEDDED TRANSPONDER FOR HARMONIC NODES



- Support for the HLN 3144, 3844, 3142 and 3842 Harmonic Nodes
- Differentiate between RF problems in the HFC network and headend problems
- Control attenuators to troubleshoot RF Return Path issues
- Control A/B switches to select redundant fiber paths
- Alarm on loss of light or degradation of fiber path
- Alarm on automatic receiver switching
- Allow analysis of network congestion via HSIA testing

Cheetah Technologies' Cheetah DOCSIS-based transponders enable cable operators to proactively monitor and control their Fiber Nodes using existing DOCSIS infrastructure.

The transponder utilizes the standards adopted by the SCTE-HMS subcommittee for fiber node monitoring and provides easy access to information and control through standard SNMP mibs. The transponder also features the ability to conduct HSIA testing through embedded software.

Features include: Ethernet port, optical tamper switch, standard cable modem LEDs and web page access. The transponder continuously monitors and reports out of tolerance conditions via SNMP traps. All alarming thresholds are user-definable.

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General Details	
DOCSIS:	Version 2.0
HMS Monitoring Protocol:	SNMP v1
DOCSIS Monitoring Protocol:	SNMP v1, v2, v3
RF Interface:	Internal
Ethernet Interface:	RJ45
Operating Temperature:	-40°C to +85°C
Humidity:	10% to 90% (non-condensing)
EMI/EMC:	FCC Part 15 Class A, CE EN50022 Class A

RF	Transmit/Receive
Tx Frequency Range:	5 to 42 MHz
Tx Output Power:	+8 to +58 dBmV
Rx Frequency Range:	88 MHz to 860 MHz
Rx Input Level:	-15 to +15 dBmV
Channel Bandwidth:	6 and 8 MHz

Part	Numbers
Transponder:	66900-0657
Redundant Downstream Cable:	66905-0310

Monitored Parameters
Receiver Optical Power (mW)
Transmitter Laser Bias Current
Transmitter Laser Power (mW)
Power Supply Voltages (24, 12, and 5)
Node Internal Temperature
Receiver Optical Alarm
Tamper
A/B Switch Status and Alarm
Tamper
Wink Switch Attenuation

Available Controls
A/B Switch Control
Wink Switch Control

Node Monitoring Applications:
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Ethernet Port
The Ethernet port can provide local access to the embedded web page for configuration and control

Optical Tamper Switch
The optical tamper switch embedded in the transponder will report on the status of the node (open or closed lid).

Cable Modem LEDs
The cable modem LEDs display the registration status of the transponder in the DOCSIS network.

Embedded Web Page
The embedded web page can be used to display both cable modem and HMS node data gathered from the transponder. HSIA testing is supported through the web page and can be accessed either locally via the Ethernet port or remotely via a browser application.