

CMD-N ARRIS® SG4000

DOCSIS®-based, Embedded Transponder for Arris® Nodes



- Support for the Arris SG4000, MBN100/200 node, MPN100 pedestal node, VSN200 node or a BTN100/2000 node
- Transponder automatically detects installation in SG4000 or MBN 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 HSPA testing

Alpha's 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 HSPA 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 userdefinable.

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 +75°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:	66900-0665

Monitored Parameters
Receiver Optical Power (mW)
Transmitter Laser Bias Current
Transmitter Laser Power (mW)
Power Supply Voltages (24, 12, and 5)
RJ45
Node Internal Temperature
Receiver Optical Alarm
A/B Switch Status and Alarm
Tamper
Wink Switch Attenuation

Available Controls
A/B Switch Control
Wink Switch Control

Node Monitoring Applications:
Support for the Arris SG4000 , MBN series Nodes, MPN100 pedestal node, VSN200 node and BTN series Nodes
Transponder automatically detects installation in SG4000 or MBN 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

Ethernet Port
The Ethernet port provides local access to 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 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.



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