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**Hybrid Management Sub-Layer Subcommittee**

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# Hybrid Fiber Coax Outside Plant Status Monitoring – Media Access Control (MAC) Layer Specification v1.0

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140 Philips Road

Exton, PA 19341

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## DOCUMENT HISTORY

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# 1 Introduction

The Hybrid Fiber Coax (HFC) Outside Plant (OSP) Media Access Control (MAC) Layer Specification is part of the suite of specifications developed by the Hybrid Management Sub-Layer (HMS) subcommittee under the SCTE. The purpose of the HMS specifications is to support the design and implementation of interoperable management systems for evolving HFC cable networks. The HMS Media Access Control (MAC) Layer Specification describes the messaging and protocols implemented at the Data Link Layer (DLL), Layer 2 in the 7-layer ISO-OSI reference model, that support reliable and efficient communications between HMS-compliant transponders interfacing to managed OSP network elements (NEs) and a centralized headend element (HE).

## 1.1 Scope

This specification describes the MAC layer protocols that must be implemented between all *Type 2* and *Type 3* compliant OSP HMS transponders on the HFC plant and the controlling equipment in the headend to support bandwidth management and reliable communications. Any exceptions to compliance with this specification will be specifically noted in this document as necessary. Refer to **Table 1** for a full definition of the Type Classifications.

## 1.2 Transponder Type Classifications

Transponder type classifications referenced within the HMS suite of specifications are defined in **Table 1**.