

75.6 Dual-rate (coexistence) mode

To support coexistence of 10G-EPON and 1G-EPON ONUs on the same outside plant, the OLT may be configured to use a dual-rate mode. Dual-rate mode supports transmission ~~and~~ reception of both 10 Gb/s and 1 Gb/s data rates, and can be introduced as ~~an~~ options for 10G-EPON OLTs, functionally combining PMDs of 10 Gb/s and 1 Gb/s data rates.

~~BASE-PR-D or 10/1GBASE-PRX-D PMDs.~~

Table 75-12 depicts PMD coexistence mapping for dual-rate mode options.

Table 75-12—PMD coexistence mapping for dual-rate mode option^a

Dual-rate operation	OLT PMD combination	ONU PMDs coexisting on the same ODN
Downstream	1000BASE-PX-D 10/1GBASE-PRX-D	(1) 1000BASE-PX-U (2) 10/1GBASE-PRX-U
Upstream	10GBASE-PR-D 10/1GBASE-PRX-D	(1) 10GBASE-PR-U (2) 10/1GBASE-PRX-U
Downstream and upstream	1000BASE-PX-D 10GBASE-PR-D	(1) 1000BASE-PX-U (2) 10/1GBASE-PRX-U (3) 10GBASE-PR-U

^aNote: Only PMDs with compatible power budgets can be connected to the same ODN.

75.6.1 Downstream dual-rate operation

When the downstream dual-rate operation is enabled, the OLT transmits both 10 Gb/s and 1 Gb/s downstream signals in WDM manner. The OLT should meet both 10 Gb/s and 1 Gb/s specifications defined in

Table 75-5 (10GBASE-PR-D transmit ~~specification characteristics~~) and in Table 60-3 or Table 60-6

(1000BASE-PX-D transmit characteristics).

75.6.2 Upstream dual-rate operation

When the upstream dual-rate operation is enabled, the OLT receives both 10 Gb/s and 1 Gb/s upstream signals in TDMA manner. Further implementation details are described in Annex 75A. The OLT should meet

both 10 Gb/s and 1 Gb/s specifications defined in Table 75-6 (10GBASE-PR-D receive characteristics), and in Table 60-5, Table 60-8 (1000BASE-PX-D receive characteristics) and Table 75-7 (10/1GBASE-PRX-D receive characteristics).

NOTE—The damage threshold values in Table 60-5, Table 60-8 and Table 75-7 are considerably higher than those in Table 75-6 and the PMD should be appropriately labeled.

Summary of Comments on 75

Page: 1

Sequence number: 1
Author: Marek Hajduczenia
Subject: Replacement Text
Date: 24-10-2008 9:10:36
 \mathbb{F}_A supporting

Sequence number: 2
Author: Marek Hajduczenia
Subject: Inserted Text
Date: 24-10-2008 9:10:28
 \mathbb{T}_A

Sequence number: 3
Author: Marek Hajduczenia
Subject: Inserted Text
Date: 24-10-2008 9:10:26
 \mathbb{T}_A

Sequence number: 4
Author: Marek Hajduczenia
Subject: Comment on Text
Date: 24-10-2008 9:14:31
 \mathbb{T} extend the size of the table as per comment #2689

Sequence number: 5
Author: Marek Hajduczenia
Subject: Inserted Text
Date: 24-10-2008 9:12:50
 \mathbb{T}_A in direction

Sequence number: 6
Author: Marek Hajduczenia
Subject: Replacement Text
Date: 24-10-2008 9:13:16
 \mathbb{F}_A^d

Sequence number: 7
Author: Marek Hajduczenia
Subject: Replacement Text
Date: 24-10-2008 9:13:17
 \mathbb{F}_A^u

Sequence number: 8
Author: Marek Hajduczenia
Subject: Inserted Text
Date: 24-10-2008 9:13:14
 \mathbb{T}_A and

Sequence number: 9
Author: Marek Hajduczenia
Subject: Replacement Text
Date: 24-10-2008 9:13:18
 \mathbb{F}_A^d

Sequence number: 10
Author: Marek Hajduczenia
Subject: Replacement Text
Date: 24-10-2008 9:13:20
 \mathbb{F}_A^u

Sequence number: 11
Author: Marek Hajduczenia
Subject: Comment on Text
Date: 24-10-2008 9:15:02
 \mathbb{T} No line break !!!

Sequence number: 12
Author: Marek Hajduczenia
Subject: Comment on Text
Date: 24-10-2008 9:14:52
 \mathbb{T} No line break !!!

Sequence number: 13
Author: Marek Hajduczenia
Subject: Cross-Out
Date: 24-10-2008 9:11:46
 \mathbb{T}

Sequence number: 14
Author: Marek Hajduczenia
Subject: Replacement Text
Date: 24-10-2008 9:28:30
 \mathbb{F}_A ; the dual-rate PMD should be labeled appropriately.
