D/S Power & wavelength Plan

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Supporters

- Please, join us to make a progress for IEEE802.3av

Introduction

- Reasonable compromise required for our group moving forward
  - PIN-PD vs. APD: there seems to be no significant problems for both cases
- Sticking too much to coexistence, not considering Greenfield,
  - Even some service providers skeptical to coexistence
- Power budget and wavelength plan tightly coupled to each other so that these two issues should be discussed simultaneously
- Providing some possibilities so that all the devices of both camps might be used
  - APD, PIN-PD, optical amplified source, high-power EML

Proposal

	PR10-D	PR20-D	PR30-D
ChIL	20 dB	24 dB	29 dB
Path Penalty	1 dB	1 dB	1 dB
OLT launch	+3 dBm	+4 dBm	+5 dBm
ONT sensitivity (without FEC)	-18 dBm (PIN-PD)	-21 dBm (PIN-PD, APD)	-25 dBm (APD)
Wavelength	1550 nm (C-band)	1550 nm (C-band)	1575 nm
Remarks	Greenfield	Greenfield	Coexistence

Summary

- High-power EML used for all the three classes in OLT
- PR10-D
  - Optical components supporting C-band widely used
  - Not many service providers interested in the video signal (analog or digital) for broadcast (none in Korea)
  - Cost effective solution by using PIN-PD
  - If somebody want to support more than 128 split ratio with the proposed ONT spec. of PR10-D, an optical amplifier could be used (industry standard)
- PR20-D
  - Receiver sensitivity of ONT might be implemented by one of the two following options
    - PIN-PD with high performance in future
    - Low performance APD with low cost
- PR30-D
  - Supporting coexistence with 1G EPON using APD

Opinion Poll

- Could you support C-band (1550 nm) & PIN-PD for Greenfield if high-power EML and APD can be used with 1575 nm for coexistence?

- Y:
- N:
- A: