

A YANG model to manage the optical interface parameters for an external transponder in a WDM network

[draft-galimbe-ccamp-iv-yang-05](#)

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Motivation & Problem statement

Problem:

- Coherent transceivers not covered by standards today → draft status is experimental
- Supporting several combinations of parameters with interdependency between each other
- Current YANG models do not support the planning aspect allowing to select the best parameter combination
- Yang models definition according to existing draft like: draft-ietf-ccamp-wson-iv-info, draft-martinelli-ccamp-wson-iv-encode and RFC6566

Motivation:

- Provide a consistent way to plan and operate wavelength Interfaces with netconf/yang

Changes from the previous version

- [draft-galimbe-ccamp-iv-yang-05](#)
 - Corrected few typo
 - Added new parameters
 - Heavily reshaped the models and new schema generated

Now the schema is ...

```
... module: ietf-opt-parameters-wdm-  
... .. augment /if: interfaces/if: interface:-  
... .. +--rw optical-transport-  
... .. | +--rw attenuator-value? .. attenuator-t-  
... .. | +--rw offset? .. decimal64-  
... .. | +--rw channel-power-ref? .. decimal64-  
... .. | +--rw tilt-calibration? .. tilt-t-  
... .. +--rw opwr-threshold-warning-  
... .. | +--rw opwr-min? .. dbm-t-  
... .. | +--rw opwr-min-clear? .. dbm-t-  
... .. | +--rw opwr-max? .. dbm-t-  
... .. +--rw gain-degrade-alarm-  
... .. | +--rw gain-degrade-low? .. dbm-t-  
... .. | +--rw gain-degrade-high? .. dbm-t-  
... .. +--rw power-degrade-high-alarm-  
... .. | +--rw gain-degrade-high? .. dbm-t-  
... .. +--rw power-degrade-low-alarm-  
... .. | +--ro power-degrade-low? .. dbm-t-  
... .. +--rw noise-  
... .. | +--rw noise? .. decimal64-  
... .. +--rw noise-sigma-  
... .. | +--rw noise? .. decimal64-  
... .. +--rw chromatic-dispersion-  
... .. | +--rw noise-sigma? .. decimal64-  
... .. +--rw chromatic-dispersion-slope-  
... .. | +--rw chromatic-dispersion-slope? .. decimal64-
```



... and

```
.....+--rw pmd-  
.....|..+--rw pmd?..decimal64-  
.....+--rw pdl-  
.....|..+--rw pdl?..decimal64-  
.....+--rw drop-power-  
.....|..+--rw drop-power?..decimal64-  
.....+--rw drop-power-sigma-  
.....|..+--rw noise?..decimal64-  
.....+--rw ripple-  
.....|..+--rw drop-power-sigma?..decimal64-  
.....+--ro ch-noise-figure-  
.....|..+--ro ch-noise-figure* [ch-noise-fig]-  
.....|.....+--ro ch-noise-fig.....ch-noise-figure-point-  
.....|.....+--ro input-to-output?..decimal64-  
.....|.....+--ro input-to-drop?..decimal64-  
.....|.....+--ro add-to-output?..decimal64-  
.....+--rw dgd-  
.....|..+--rw dgd?..decimal64-  
.....+--ro ch-isolation-  
.....|..+--ro ch-isolation* [ch-isolat]-  
.....|.....+--ro ch-isolat.....ch-isolation-cross-  
.....|.....+--ro ad-ch-isol?..decimal64-  
.....|.....+--ro no-ad-ch-iso?..decimal64-  
.....+--rw ch-extinction-  
.....+--rw cer?..decimal64-
```



Next Steps

- Keep alignment with related effort in CCAMP
- Keep alignment to **draft-ietf-ccamp-wson-iv-info** and **draft-martinelli-ccamp-wson-iv-encode** and follow the fate
- Keep focus on operational aspects
- Address feedbacks to become WG doc.