

PoDL Support for RP levels (Observations on Max Power)

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13/05/2023

Observations

- ISO 14763-2 (and ISO 11801-1) place restrictions on current carrying capacity.
- These restrictions restrict which PoDL classes can be run on a given channel (link segment)
- This in turn limits the amount of power available on those link segments
 - These restrictions are independent of the resistance requirements specified in clause 104.
- As 14763-2 provides information on 4P remote powering classes, it would be useful to provide a similar table for SP classes where the issues is more complex

Class	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Maximum Power at input to power supply equipment (W)	0.5	1	3	5	1	3	5	7	30	50	1.23	3.2	8.4	7.7	20	52		
No of remote powering pairs	1																	
i_c (mA)	101	227	249	471	97	339	215	461	735	1360	92	240	632	231	600	1579		
i_c-average (mA)	N/A for single pair powering																	
Max Loop resistance (Ω)	6		6.5								65	25	9.5	65	25	9.5		Max Power*
Supported by RP1-1P	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No	No	No	No	No	5W	
Supported by RP2-1P	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	No	7.7W	
Supported by RP3-1P	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	52W	
Supported by Class D to II	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	30W	

* Maximum power has Resistance restrictions

Main points

- 0.5A RP classes are limited to 7.7W
- RP3 cable sharing is limited to 7.7W (e.g. ISO 11801-9911 in an RP3 installation).