

Docsis 3.1 DATA-TV filter with diplexer

With the introduction of Docsis 3.1, most in-home networks are not suitable for the enhanced frequency ranges; both forward (258-1218MHz) and return (5-204). E.g. most in-home outlets have an FM-port, making the FM unusable for Docsis 3.1 return path data.

The Docsis 3.1 DATA-TV filter offers the possibility to separate the Docsis 3.1 signals at the Home Network Interface, i.e. at the interface between the distribution network and the in-home network. In that way, what happens in the in-home network is not influenced by the new frequency bands, and the need to update is reduced. Also, the distribution network is shielded against any disturbance picked-up in the in-home network in the return path band. The Docsis 3.1 DATA-TV filter contains a diplexer, which reduces the insertion loss in the return path band.

Type	DVU 1-4 1G3
Version	Diplex
Item no.	41139
DATA	
Frequency forward	258-1300 MHz
Frequency reverse	5-204 MHz
Insertion loss forward	4.0(±1.0) dB
Insertion loss reverse	0.8 (±0.6) dB
Return loss	Grade 2*
Isolation to DATA-TV (5-204 MHz)	>50 dB
Isolation to DATA-TV (258-1300 MHz)	>20 dB
TV	
Frequency range	258-1300 MHz
Insertion loss	4.0(±1) dB
Return loss	Grade 2*
Common	
Input return loss (5-1300 MHz)	Grade 2*
Connectors	F-Female
Screening effectiveness (5-30 MHz)	> 90 dB
(30-300 MHz)	> 85 dB
(300-470 MHz)	> 80 dB
(470-1300 MHz)	> 75 dB
Operating temperature	0°C - 55°C
Dimensions (H x W x D)	19 x 66.5 x 50 mm



* According to CENELEC EN6028-4; return loss Grade 2:

5-47 MHz ≥ 18 dB
47-1300 MHz ≥ 18 dB ÷ 1.5/oct.