DIGITAL LINE SPLITTERS AND TAPS

Digital line splitters, taps and multitaps are a versatile family of indoor passives. By offering a wide choice of different housings and complete line of tap off and splitting ratios, digital line offers the highest possible flexibility in designing and installing indoor access network.

Standard form housing offers a conventional form type of splitters and taps. Combined with Euro form housing, where all ports are facing into same direction, it is ideal combination for space saving distribution cabinet design. In addition, all housings have 7mm high plastic base fitted as standard, so cables can pass underneath. Euro line digital passives can be mounted also in vertical position, thus enabling one of the industry highest port density.

Vertical form of digital line passives has all ports facing upwards, and is most complete line, when it comes to number of models. It offers space saving designs for large star distribution networks. It can be mounted in horizontal or vertical position to achieve maximum flexibility.

Features

- Conforms to RoHS directive
- Meets and surpasses A class CENELEC standards
- Linear frequency response
- High port isolation
- Nickel plated HQ housing
- Beryllium metal, gold plated F ports
- Well screened housings
- Wide choice of housings and mounting positions
- Plastic base for easy handling
- High intermodulation distortion characteristics
- DC blocking capacitors against HUM modulation

Technical specifications

Common technical specifications

Return loss all ports (dB min)		
5…40 MHz	22	
40…1000 MHz	22	1)
RFI shielding (dB min)		
5…470 MHz	85	
470…1000 MHz	75	
IM distortion (dB min)		
5…1000 MHz	55	2)

Notes

1) @ 40 MHz -1.5 dB / octave, but not less than 19 dB

2) with two carriers 60 dBmV up to 65 MHz

DxS Passives, standard form housing

DSS Splitters

Frequency / MHz	DSS2	DSS3U	DSS3	DSS4
Insertion Loss (dB max)				
5…65	3,5	4,5 / 7,8	6,2	7,8
65…470	4,0	4,5 / 7,8	6,2	7,8
470…1000	4,5	4,5 / 8,0	6,2	8,0
Isolation Out-Out (dB min)				
5…65	40	40	40	40
65…470	35	35	35	35
470…1000	30	30	30	30

DTS One Way Taps

Frequency / MHz	DTS106	DTS108	DTS110	DTS112
Tap Loss (dB)				
5…65	6,0 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0
65…470	6,0 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0
470…1000	6,0 ± 1,0	8,5 ± 1,5	10,5 ± 1,5	12,5 ± 1.5
Insertion Loss (dB)				
5…65	2,2 ± 0,5	1,6 ± 0,4	0,8 ± 0,4	0,6 ± 0,3
65…470	2,2 ± 0,5	1,6 ± 0,4	0,8 ± 0,4	0,6 ± 0,3
470…1000	2,4 ± 0,5	1,9 ± 0,5	1,2 ± 0,5	1,0 ± 0.5
Isolation Tap-Out (dB min)				
5…65	30	30	32	32
65…470	26	26	28	28
470…1000	22	22	24	24

DTS One Way Taps

Frequency / MHz	DTS116	DTS120	DTS124	DTS130
Tap Loss (dB)				
5…65	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
65…470	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
470…1000	16,0 ± 1,5	20,0 ± 1,5	24,0 ± 1,5	30,0 ± 1.5
Insertion Loss (dB)				
5…65	0,5 ± 0,3	0,4 ± 0,3	0,4 ± 0,3	0,3 ± 0,3
65…470	0,5 ± 0,3	0,5 ± 0,3	0,4 ± 0,3	0,4 ± 0,3
470…1000	0,8 ± 0,5	0,8 ± 0,5	0,7 ± 0,5	0,6 ± 0.5
Isolation Tap-Out (dB min)				
5…65	36	40	40	42
65…470	32	36	36	38
470…1000	28	32	32	34

DTS2 Two Way Taps

Frequency / MHz	DTS208	DTS210	DTS212	DTS216
Tap Loss (dB)				
5…65	8,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0
65…470	8,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0
470…1000	8,0 ± 1,5	10,0 ± 1,5	12,0 ± 1,5	16,0 ± 1.5
Insertion Loss (dB)				
5…65	3,5 ± 1,0	2,2 ± 0,5	1,5 ± 0,4	1,0 ± 0,4
65…470	4,0 ± 1,0	2,5 ± 0,5	1,5 ± 0,4	1,2 ± 0,4
470…1000	4,0 ± 1,2	2,5 ± 1,0	1,6 ± 0,8	1,6 ± 0,4
Isolation Tap-Out (dB min)				
5…65	30	30	32	32
65…470	26	26	28	28
470…1000	22	22	24	24
Isolation Tap-Tap (dB min)				
5…65	36	40	40	40
65…470	40	40	40	40
470…1000	36	36	36	36

DTS2 Two Way Taps

Frequency / MHz	DTS220	DTS224	DTS230
Tap Loss (dB)			
5…65	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
65…470	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
470…1000	20,0 ± 1,5	24,0 ± 1,5	30,0 ± 1,5
Insertion Loss (dB)			
5…65	0,8 ± 0,5	0,8 ± 0,5	0,8 ± 0,5
65…470	0,8 ± 0,5	0,8 ± 0,5	0,8 ± 0,5
470…1000	1,0 ± 0,5	0,9 ± 0,5	0,9 ± 0,5
Isolation Tap-Out (dB min)			
5…65	40	40	40
65…470	40	40	40
470…1000	28	32	32
Isolation Tap-Tap (dB min)			
5…65	40	40	40
65…470	36	36	36
470…1000	32	32	32

DxE Passives, euro form housing

DSE Splitters

Frequency / MHz	DSE2	DSE3U	DSE3	DSE4
Insertion Loss (dB max)				
5…65	3,5	4,5 / 7,8	6,2	7,8
65…470	4,0	4,5 / 7,8	6,2	7,8
470…1000	4,5	4,5 / 8,0	6,2	8,0
Isolation Out-Out (dB min)				
5…65	40	40	40	40
65…470	35	35	35	35
470…1000	30	30	30	30

DTE1 One Way Taps

Frequency / MHz	DTE106	DTE108	DTE110	DTE112
Tap Loss (dB)				
5…65	6,0 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0
65…470	6,0 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0
470…1000	6,0 ± 1,0	8,5 ± 1,5	10,5 ± 1,5	12,5 ± 1.5
Insertion Loss (dB)				
5…65	2,2 ± 0,5	1,6 ± 0,4	0,8 ± 0,4	0,6 ± 0,3
65…470	2,2 ± 0,5	1,6 ± 0,4	0,8 ± 0,4	0,6 ± 0,3
470…1000	2,4 ± 0,5	1,9 ± 0,5	1,2 ± 0,5	1,0 ± 0.5
Isolation Tap-Out (dB min)				
5…65	30	30	32	32
65…470	26	26	28	28
470…1000	22	22	24	24

DTE1 One Way Taps

Frequency / MHz	DTE116	DTE120	DTE124	DTE130
Tap Loss (dB)				
5…65	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
65…470	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
470…1000	16,0 ± 1,5	20,0 ± 1,5	24,0 ± 1,5	30,0 ± 1.5
Insertion Loss (dB)				
5…65	0,5 ± 0,3	0,4 ± 0,3	0,4 ± 0,3	0,3 ± 0,3
65…470	0,5 ± 0,3	0,5 ± 0,3	0,4 ± 0,3	0,4 ± 0,3
470…1000	0,8 ± 0,5	0,8 ± 0,5	0,7 ± 0,5	0,6 ± 0.5
Isolation Tap-Out (dB min)				
5…65	36	40	40	42
65…470	32	36	36	38
470…1000	28	32	32	34

DTE2 Two Way Taps

Frequency / MHz	DTE208	DTE210	DTE212	DTE216
Tap Loss (dB)				
5…65	8,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0
65…470	8,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0
470…1000	8,0 ± 1,5	10,0 ± 1,5	12,0 ± 1,5	16,0 ± 1.5
Insertion Loss (dB)				
5…65	3,5 ± 1,0	2,2 ± 0,5	1,5 ± 0,4	1,0 ± 0,4
65…470	4,0 ± 1,0	2,5 ± 0,5	1,5 ± 0,4	1,2 ± 0,4
470…1000	4,0 ± 1,2	2,5 ± 1,0	1,6 ± 0,8	1,6 ± 0.4
Isolation Tap-Out (dB min)				
5…65	30	30	32	32
65…470	26	26	28	28
470…1000	22	22	24	24
Isolation Tap-Tap (dB min)				
5…65	40	40	40	40
65…470	37	40	40	36
470…1000	30	36	36	36

DTE2 Two Way Taps

Frequency / MHz	DTE220	DTE224	DTE230
Tap Loss (dB)			
5…65	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
65…470	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
470…1000	20,0 ± 1,5	24,0 ± 1,5	30,0 ± 1,5
Insertion Loss (dB)			
5…65	0,8 ± 0,5	0,8 ± 0,5	0,8 ± 0,5
65…470	0,8 ± 0,5	0,8 ± 0,5	0,8 ± 0,5
470…1000	1,0 ± 0,5	0,9 ± 0,5	0,9 ± 0,5
Isolation Tap-Out (dB min)			
5…65	36	40	40
65…470	32	36	36
470…1000	28	32	32
Isolation Tap-Tap (dB min)			
5…65	40	40	40
65…470	40	40	40
470…1000	36	36	36

DTE3 Three Way Taps

Frequency / MHz	DTE310	DTE312	DTE316	DTE320
Tap Loss (dB)				
5…65	10,0 ± 1,5	12,0 ± 2,0	15,5 ± 1,0	19,5 ± 1,0
65…470	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0	20,5 ± 1,0
470…1000	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0	20,5 ± 1,0
Insertion Loss (dB)				
5…65	4,2 ± 0.8	2,9 ± 0,8	1,6 ± 0,8	1,0 ± 0,8
65…470	4,6 ± 0.8	3,2 ± 0,8	1,7 ± 0,8	1,2 ± 0,8
470…1000	5,0 ± 1.0	3,8 ± 0,8	1,9 ± 0,8	1,4 ± 0,8
Isolation Tap-Out (dB min)				
5…65	30	30	30	31
65…470	26	30	30	30
470…1000	22	30	36	36
Isolation Tap-Tap (dB min)				
5…65	36	40	40	40
65…470	32	40	40	40
470…1000	28	36	36	36

DTE3 Three Way Taps

Frequency / MHz	DTE324	DTE330
Tap Loss (dB)		
5…65	23,5 ± 1,0	29,5 ± 1,0
65…470	24,5 ± 1,0	30,5 ± 1,0
470…1000	24,5 ± 1,0	30,5 ± 1.0
Insertion Loss (dB)		
5…65	1,0 ± 0,8	1,0 ± 0,8
65…470	1,2 ± 0,8	1,2 ± 0,8
470…1000	1,4 ± 0.8	1,4 ± 0.8
Isolation Tap-Out (dB min)		
5…65	32	38
65…470	30	30
470…1000	36	36
Isolation Tap-Tap (dB min)		
5…65	40	40
65…470	40	40
470…1000	36	36

DTE4T Four Way Terminated Tap

Frequency / MHz	DTE412T
Tap Loss (dB)	
5…65	11,5 ± 2,0
65…470	12,5 ± 1,0
470…1000	13,5 ± 1,0
Insertion Loss (dB)	
5…65	-
65…470	-
470…1000	-
Isolation Tap-Out (dB min)	
5…65	-
65…470	-
470…1000	-
Isolation Tap-Tap (dB min)	
5…65	36
65…470	36
470…1000	30

DxV Passives, vertical form housing

DSV Splitters

Frequency / MHz	DSV2	DSV3U	DSV3	DSV4
Insertion Loss (dB max)				
5…65	3,5	4,5 / 7,8	6,0	7,8
65…470	4,0	4,5 / 7,8	6,2	7,8
470…1000	4,5	4,5 / 8,0	6,4	8,2
Isolation Out-Out (dB min)				
5…65	40	40	40	40
65…470	35	35	35	35
470…1000	30	30	30	30

DSV Splitters

Frequency / MHz	DSV6	DSV8
Insertion Loss (dB max)		
5…65	9,0	11,0
65…470	9,3	10,8
470…1000	11,0	12,0
Isolation Out-Out (dB min)		
5…65	40	40
65…470	35	35
470…1000	30	30

DTV1 One Way Taps

Frequency / MHz	DTV106	DTV108	DTV110	DTV112
Tap Loss (dB)				
5…65	6,0 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0
65…470	6,0 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0
470…1000	6,0 ± 1,0	8,5 ± 1,5	10,5 ± 1,5	12,5 ± 1.5
Insertion Loss (dB)				
5…65	2,2 ± 0,5	1,6 ± 0,4	0,8 ± 0,4	0,6 ± 0,3
65…470	2,2 ± 0,5	1,6 ± 0,4	0,8 ± 0,4	0,6 ± 0,3
470…1000	2,4 ± 0,5	1,9 ± 0,5	1,2 ± 0,5	1,0 ± 0.5
Isolation Tap-Out (dB min)				
5…65	30	30	32	32
65…470	26	26	28	28
470…1000	22	22	24	24

DTV1 One Way Taps

Frequency / MHz	DTV116	DTV120	DTV124	DTV130
Tap Loss (dB)				
5…65	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
65…470	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
470…1000	16,0 ± 1,5	20,0 ± 1,5	24,0 ± 1,5	30,0 ± 1.5
Insertion Loss (dB)				
5…65	0,5 ± 0,3	0,4 ± 0,3	0,4 ± 0,3	0,3 ± 0,3
65…470	0,5 ± 0,3	0,5 ± 0,3	0,4 ± 0,3	0,4 ± 0,3
470…1000	0,8 ± 0,5	0,8 ± 0,5	0,7 ± 0,5	0,6 ± 0,5
Isolation Tap-Out (dB min)				
5…65	36	40	40	42
65…470	32	36	36	38
470…1000	28	32	32	34

DTV2 Two Way Taps

Frequency / MHz	DTV208	DTV210	DTV212	DTV216
Tap Loss (dB)				
5…65	8,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0
65…470	8,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	16,0 ± 1,0
470…1000	8,0 ± 1,5	10,0 ± 1,5	12,0 ± 1,5	16,0 ± 1.5
Insertion Loss (dB)				
5…65	3,5 ± 1,0	2,2 ± 0,5	1,5 ± 0,4	1,0 ± 0,4
65…470	4,0 ± 1,0	2,5 ± 0,5	1,5 ± 0,4	1,2 ± 0,4
470…1000	4,0 ± 1,2	2,5 ± 1,0	1,6 ± 0,8	1,6 ± 0.4
Isolation Tap-Out (dB min)				
5…65	30	30	32	32
65…470	26	26	28	28
470…1000	22	22	24	24
Isolation Tap-Tap (dB min)				
5…65	36	40	40	40
65…470	36	40	40	40
470…1000	30	36	36	36

DTV2 Two Way Taps

Frequency / MHz	DTV220	DTV224	DTV230
Tap Loss (dB)			
5…65	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
65…470	20,0 ± 1,0	24,0 ± 1,0	30,0 ± 1,0
470…1000	20,0 ± 1,5	24,0 ± 1,5	30,0 ± 1,5
Insertion Loss (dB)			
5…65	0,8 ± 0,5	0,8 ± 0,5	0,8 ± 0,5
65…470	0,8 ± 0,5	0,8 ± 0,5	0,8 ± 0,5
470…1000	1,0 ± 0,5	0,9 ± 0,5	0,9 ± 0,5
Isolation Tap-Out (dB min)			
5…65	36	40	40
65…470	32	36	36
470…1000	28	32	32
Isolation Tap-Tap (dB min)			
5…65	40	40	40
65…470	40	40	40
470…1000	36	36	36

DTV4 Four Way Taps

Frequency / MHz	DTV410	DTV412	DTV416	DTV420	DTV424
Tap Loss (dB)					
5…65	10.0 ± 1,0	11,5 ± 2,0	15,5 ± 1,0	19,5 ± 1,0	24,0 ± 2,0
65…470	10.5 ± 1,0	12,5 ± 1,0	16,5 ± 1,0	20,5 ± 1,0	24,0 ± 1,0
470…1000	11.0 ± 1,0	13,5 ± 1,0	16,5 ± 1,0	20,5 ± 1,0	24,0 ± 1,0
Insertion Loss (dB)					
5…65	3,5 ± 0,8	3,5 ± 0,8	2,1 ± 0,8	1,9 ± 0,8	1,9 ± 0,8
65…470	3,7 ± 0,8	3,7 ± 0,8	2,2 ± 0,8	2,0 ± 0,8	2,0 ± 0,8
470…1000	3,8 ± 0,8	3,8 ± 0,8	2,5 ± 0,8	2,5 ± 0,8	2,5 ± 0.8
Isolation Tap-Out (dB min)					
5…65	30	30	30	33	33
65…470	28	28	28	34	34
470…1000	24	24	24	36	36
Isolation Tap-Tap (dB min)					
5…65	36	36	40	40	40
65…470	32	36	40	40	40
470…1000	26	30	36	36	36

DTV8 Eight Way Taps

Frequency / MHz	DTV814	DTV816	DTV820	DTV824
Tap Loss (dB)				
5…65	13,0 ± 1,0	15,5 ± 2,0	19,5 ± 2,0	23,0 ± 2,0
65…470	13,5 ± 1,0	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1,0
470…1000	14,0 ± 1,0	16,0 ± 1,0	20,0 ± 1,0	24,0 ± 1.0
Insertion Loss (dB)				
5…65	3,5 ± 0,8	2,2 ± 0,8	1,2 ± 0,8	0,8 ± 0,8
65…470	3,5 ± 0,8	2,4 ± 0,8	1,8 ± 0,8	1,0 ± 0,8
470…1000	4,0 ± 0,8	2,8 ± 0,8	2,0 ± 0,8	1,5 ± 0.8
Isolation Tap-Out (dB min)				
5…65	30	30	33	33
65…470	28	28	34	34
470…1000	24	24	36	36
Isolation Tap-Tap (dB min)				
5…65	36	40	36	40
65…470	35	40	36	36
470…1000	30	32	30	32

DMV Multitaps

Frequency / MHz	DMV8	DMV6
Insertion Loss (dB)		
5…65	9,0 ± 1,0	6,8 ± 1,0
65…470	9,0 ± 1,5	6,9 ± 1,0
470…1000	9,0 ± 1,5	6,9 ± 1,5
Tap Loss (dB)		
5…1000	12,5 / 13,5 / 14,5 / 15,0 / 16,0 / 17,0 / 18,0 / 19,0 ± 1,0	12,5 / 13,5 / 14,5 / 15,5 / 16,5 / 17,5 ± 1,0
Isolation Tap-Out (dB min)		
5…65	26	26
65…470	30	30
470…1000	26	26
Isolation Tap-Tap (dB min)		
5…65	40	40
65…470	40	40
470…1000	36	36

DMV Multitaps

Frequency / MHz	DMV5T	DMV4
Insertion Loss (dB)		
5…65	-	3,8 ± 0,8
65…470	-	3,9 ± 0,8
470…1000	-	3,9 ± 0,8
Tap Loss (dB)		
5…1000	12,5 / 12,5 / 12,5 / 12,0 / 12,0 ± 1,0	12,5 / 13,5 / 14,5 / 15,5 ± 1,0
Isolation Tap-Out (dB min)		
5…65	-	26
65…470	-	30
470…1000	-	26
Isolation Tap-Tap (dB min)		
5…65	40	40
65…470	40	40
470…1000	36	36

General

Connectors	F-connectors	1)
Impedance	75 Ω	
Enclosure classification	IP64	
Operating temperature range	-10...+55 °C	
Storage temperature range	-30...+70 °C	
EMC compatibility	EN 50083-2	

Notes

1) According ANSI/SCTE 02 1997 (formerly IPS SP 406). Minimum inner wire dimension 0.51 mm.