

BRILLIANT LINE PLUS SPLITTERS

CENELEC Requirements					
Return loss	Grade 1	Grade 2	Isolation	Grade 1	Grade 2
5-40 MHz	≥ 22 dB	t.b. published	5-40 MHz	≥ 22 dB	t.b. published
40-1750 MHz	≥ 22 dB*	≥ 18 dB*	40-1750 MHz	≥ 22 dB*	≥ 18 dB*

Isolation: In case of Splitters with a difference in nominal Port Loss this difference has to be added to the Cenelec Isolation requirements as stated above.

2-Way Splitter: SB-02+			
Description	Frequency range	Specifications	
Through loss (dB)			
	5-10 MHz	3.4 ± 0.3	$\pm 0^{**}$
	10-470 MHz	3.3 ± 0.3	$\pm 0^{**}$
	470-862 MHz	3.6 ± 0.4	$\pm 0.1^{**}$
	862-1000 MHz	3.7 ± 0.4	$\pm 0.2^{**}$
Isolation (dB)			
	5-10 MHz	≥ 18	$\pm 0^{**}$
	10-40 MHz	≥ 26	-1^{**}
	40-862 MHz	$\geq 26^*$	-2^{**}
	862-1000 MHz	≥ 16	$\pm 0^{**}$
Return loss Input (dB)			
	5-10 MHz	≥ 18	$\pm 0^{**}$
	10-862 MHz	$\geq 22^*$	$\pm 0^{**}$
	862-1000 MHz	≥ 14	-1^{**}
Return loss Out (dB)			
	5-10 MHz	≥ 18	$\pm 0^{**}$
	10-862 MHz	$\geq 22^*$	$\pm 0^{**}$
	862-1000 MHz	≥ 14	-1^{**}
Screening efficiency (dB) ^{***}			
	5-470 MHz	≥ 85	
	470-1000 MHz	≥ 75	
All ports DC blocked			

* If $F > 40$ MHz -1.5 dB/oct.

** Tolerance over -15 to $+55^\circ\text{C}$ Temperature Range

*** Absorption Clamp Method

3-Way Splitter: SB-03+			
Description	Frequency range	Specifications	
Through loss (dB)			
	5-10 MHz	5.3 ± 0.3	$\pm 0^{**}$
	10-470 MHz	5.3 ± 0.3	$\pm 0^{**}$
	470-862 MHz	5.6 ± 0.5	$\pm 0.1^{**}$
	862-1000 MHz	6.0 ± 0.5	$\pm 0.2^{**}$
Isolation (dB)			
	5-10 MHz	≥ 18	$\pm 0^{**}$
	10-862 MHz	$\geq 22^*$	$\pm 0^{**}$
	862-1000 MHz	≥ 12	$\pm 0^{**}$
Return loss (dB)			
	5-10 MHz	≥ 18	$\pm 0^{**}$
	10-40 MHz	≥ 22	-5^{**}
	40-862 MHz	$\geq 22^*$	-3^{**}
	862-1000 MHz	≥ 12	$\pm 0^{**}$
Screening efficiency (dB) ^{***}			
	5-470 MHz	≥ 85	
	470-1000 MHz	≥ 75	
All ports DC blocked			

3-Way asymmetric Splitter: SB-33+					
Description	Frequency range	Specifications			
Through loss (dB)		output 1		output 2&3	
	5-10 MHz	3.5 ± 0.3	$\pm 0^{**}$	6.6 ± 0.4	$\pm 0^{**}$
	10-470 MHz	3.4 ± 0.3	$\pm 0.1^{**}$	6.6 ± 0.3	$\pm 0.1^{**}$
	470-862 MHz	3.7 ± 0.4	$\pm 0.2^{**}$	6.9 ± 0.5	$\pm 0.1^{**}$
	862-1000 MHz	4.1 ± 0.4	$\pm 0.2^{**}$	7.4 ± 0.5	$\pm 0.2^{**}$
Isolation (dB)		p2-p3		p1-2 / p1-3	
	5-10 MHz	≥ 18	$\pm 0^{**}$	≥ 22	$\pm 0^{**}$
	10-40 MHz	≥ 22	$\pm 0^{**}$	≥ 26	-1^{**}
	40-862 MHz	$\geq 22^*$	-1^{**}	$\geq 26^*$	$\pm 0^{**}$
	862-1000 MHz	≥ 12	$\pm 0^{**}$	≥ 16	$\pm 0^{**}$
Return loss (dB)					
	5-10 MHz	≥ 18		-1^{**}	
	10-40 MHz	≥ 22		-2^{**}	
	40-862 MHz	$\geq 22^*$		-1^{**}	
	862-1000 MHz	≥ 14		-1^{**}	
Screening efficiency (dB) ^{***}					
	5-470 MHz	≥ 85			
	470-1000 MHz	≥ 75			
All ports DC blocked					

* If $F > 40$ MHz -1.5 dB/oct.

** Tolerance over -15 to $+55^\circ\text{C}$ Temperature Range

*** Absorption Clamp Method

4-Way Splitter: SB-04+			
Description	Frequency range	Specifications	
Through loss (dB)			
	5-10 MHz	6.7 ± 0.4	$\pm 0^{**}$
	10-470 MHz	6.7 ± 0.4	$\pm 0^{**}$
	470-862 MHz	7.1 ± 0.7	$\pm 0.1^{**}$
	862-1000 MHz	7.4 ± 0.8	$\pm 0.1^{**}$
Isolation (dB)			
	5-10 MHz	≥ 18	$\pm 0^{**}$
	10-40 MHz	≥ 22	$\pm 0^{**}$
	40-862 MHz	$\geq 22^*$	-1^{**}
	862-1000 MHz	≥ 12	$\pm 0^{**}$
Return loss (dB)			
	5-10 MHz	≥ 18	-1^{**}
	10-40 MHz	≥ 22	-2^{**}
	40-862 MHz	$\geq 22^*$	-1^{**}
	862-1000 MHz	≥ 14	-1^{**}
Screening efficiency (dB) ^{***}			
	5-470 MHz	≥ 85	
	470-1000 MHz	≥ 75	
All ports DC blocked			

* If $F > 40$ MHz -1.5 dB/oct.

** Tolerance over -15 to $+55^\circ\text{C}$ Temperature Range

*** Absorption Clamp Method

8-Way Splitter: SB-08+			
Description	Frequency range	Specifications	
Through loss (dB)			
	5-10 MHz	11.3 ± 0.5	± 0.1**
	10-470 MHz	11.1 ± 0.5	± 0.2**
	470-862 MHz	11.7 ± 1.0	± 0.4**
	862-1000 MHz	12.6 ± 1.1	± 0.4**
Testport loss (dB)			
	5-10 MHz	20.0 ± 1.5	± 0.1**
	10-862 MHz	20.0 ± 1.5	± 0.1**
	862-1000 MHz	20.0 ± 1.5	± 0.1**
Isolation (dB)			
	5-10 MHz	≥ 18	-1**
	10-40 MHz	≥ 22	-1**
	40-862 MHz	≥ 22 *	-2**
	862-1000 MHz	≥ 14	-2**
Return loss Input, Testport (dB)			
	5-10 MHz	≥ 18	-3**
	10-40 MHz	≥ 22	-3**
	40-862 MHz	≥ 22 *	-2**
	862-1000 MHz	≥ 12 14	-1**
Return loss Output (dB)			
	5-10 MHz	≥ 18	-3**
	10-40 MHz	≥ 22	-3**
	40-862 MHz	≥ 22 *	-2**
	862-1000 MHz	≥ 14	-2**
Screening efficiency (dB)***			
	5-470 MHz	≥ 85	
	470-1000 MHz	≥ 75	
All ports DC blocked			

* If F > 40 MHz -1.5dB/oct.

** Tolerance over -15 to +55°C Temperature Range

*** Absorption Clamp Method