montena

Ground Plane Field Sensors

Our range of derivative electromagnetic ground plane field sensors is designed for the measurement of fast pulsed fields. Different models are available: for electric field (D-dot) and for magnetic fields (B-dot). Because the sensors are passive, no external or internal power source is required. Passive integrators and special cables are proposed as accessories. These ground plane sensors can be directly connected to a high impedance input of a fast oscilloscope through a special coaxial cable and a passive integrator or connected through an analogue fibre optic link. A fibre optic link might be used if the distance from the sensor to the measurement equipment is very long.

SPECIFICATIONS

Sensors:

Reference	**SGE1G**	**SGE3-5G**	**SGE10G**	**SGM2G**
Type	D-Dot (electric)	D-Dot (electric)	D-Dot (electric)	B-Dot (magnetic)
Equ. area A_{eq} (m^2)	1×10^{-2}	1×10^{-3}	1×10^{-4}	1.1×10^{-4}
Frequency response (-3 dB)	1 GHz	3.5 GHz	10 GHz	2 GHz
Risetime (10 – 90 %)	320 ps	110 ps	32 ps	180 ps
Peak max. output	1 kV	1 kV	1 kV	1 kV
Connector type	SMA (f)	SMA (f)	SMA (f)	SMA (f)
Weight	500 g	275 g	195 g	320 g
Dimensions (L x W x H)	40 x 6 x 5.5 cm	40 x 6 x 2.3 cm	40 x 6 x 1.3 cm	40 x 6 x 2.3 cm

Integrators:

Reference	**ITR1-2U**	**ITR12U**
Time constant	1.2 µs	12.0 µs
Frequency limit	1 GHz	150 MHz
Input / out impedance	50 Ω / 1 MΩ	
Peak maximum input	1 kV	
Dimensions / weight	6 x 2.5 x 2.5 cm / 75 gr	
Connector type	N	

Cables:

Reference	**C1-xN**	**C3-xN**	**C10-xN**
Length	1 m	3 m	10 m
Frequency range	DC - 33 GHz		
Impedance	50 Ω		
Type	semirigid		
Input connector	SMA (x=S) or N (x=N)		
Output connector	N		

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