Passive Integrators

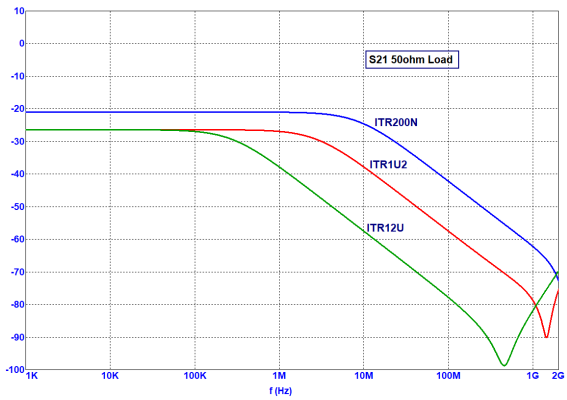
Passive integrators are designed to be used with derivative sensors, such as field or current probes, for the measurement of fast pulsed signals. Connected to this type of sensors, the passive integrator produces an overall flat response without the drawbacks of the numerical integration. The output of the passive integrator shall be connected directly to the high impedance input of a fast rise-time measurement device or of a 1 MΩ to 50 Ω impedance converter.

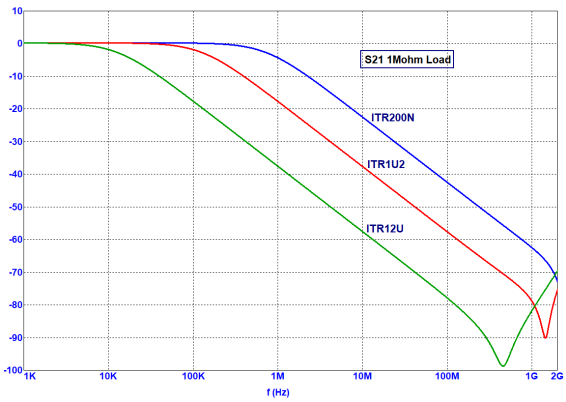
SPECIFICATIONS			
Type	**ITR200N**	**ITR1U2**	**ITR12U**
Time constant	200 ns	1.2 µs	12 µs
Cut-off frequency	1.4 GHz	1 GHz	200 MHz
Source impedance	50 Ω		
Peak maximum input	1 kV (100 ns pulse)		
Load impedance	>10 kΩ (typ. 1 MΩ)		
Input / output connectors	N / BNC or SMA / SMA		
Dimensions	N/BNC : 63 x 18 x 18 mm SMA : 47 x 18 x 18 mm		
Weight	65 g		

Other time constants available on request.

Typical performances

S21 on 50 Ω and on 1 MΩ loads





Ordering information

TYPE	DESCRIPTION
ITR200N-A	Passive integrator, T = 200 ns, up to 1.4 GHz, connectors: N(f) - BNC
ITR200N-S	Passive integrator, T = 200 ns, up to 1.4 GHz, SMA(f) – SMA(m)
ITR1U2-A	Passive integrator, T = 1.2 us, up to 1 GHz, connectors: N(f) - BNC
ITR1U2-S	Passive integrator, T = 1.2 us, up to 1 GHz, SMA(f) – SMA(m)
ITR12U-A	Passive integrator, T = 12 us, up to 200 MHz, connectors: N(f) - BNC
ITR12U-S	Passive integrator, T = 12 us, up to 200 MHz, SMA(f) – SMA(m)