

ETHERNET 10BASE-T LAN FILTER MODULES

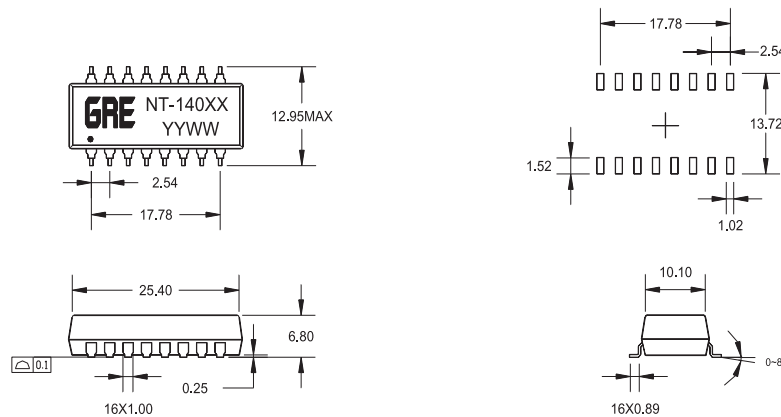
• 16PINS SURFACE MOUNT



Features:

- Meets IEEE802.3 10Base-T specifications
- 235°C peak infrared reflow temperature rating
- Design for MAUs, hub and motherboard applications
- Provides 1500Vrms minimum isolation

Mechanical



Unit: mm

Unless otherwise specified, all tolerances are ± 0.25

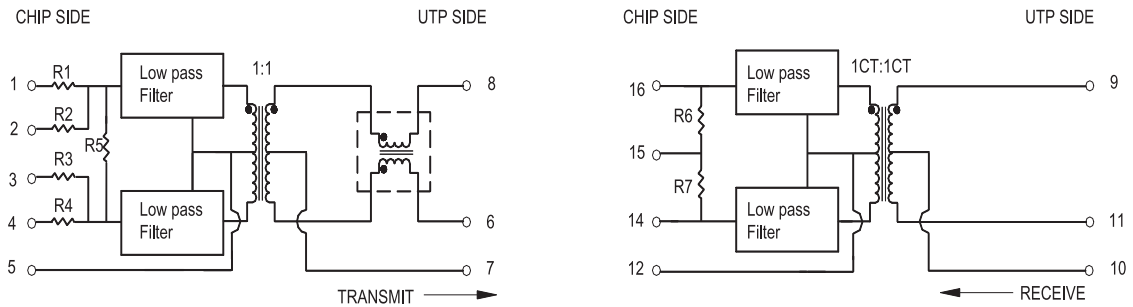
Electrical Specifications@25°C

Operating Temperature 0°C~70°C

Part Number	Insertion Loss (dB MAX)		Attenuation (XMIT) (dB MIN)			Return Loss 100OHMs	Crosstalk (dB MIN)	Common Mode Rejection (XMIT) (dB MIN)				
	1~10MHz	30MHz	40MHz	50MHz	5~10MHz			5~10MHz	5MHz	10MHz	50MHz	100MHz
NT-14000	- 1.0	- 35	- 35	- 35	- 18	- 35	- 60	- 55	- 50	- 45	- 40	
NT-14001	- 1.0	- 30	- 35	- 35	- 18	- 35	- 60	- 55	- 50	- 45	- 40	
NT-14002	- 1.0	- 35	- 35	- 35	- 18	- 35	- 60	- 55	- 50	- 45	- 40	
NT-14003	- 1.0	- 30	- 27	- 27	- 18	- 30	- 40	- 30	- 50	- 45	---	
NT-14004	- 1.0	- 30	- 30	- 35	- 18	- 30	- 35	- 30	- 50	- 50	---	
NT-14005	- 1.0	- 30	- 27	- 27	- 18	- 35	- 40	- 35	- 45	- 30	---	
NT-14006	- 1.0	- 30	- 35	- 40	- 18	- 25	- 35	- 30	- 50	- 50	---	
NT-14007	- 1.0	- 30	- 35	- 40	- 18	- 25	- 35	- 30	- 50	- 50	---	
NT-14008	- 1.0	- 30	- 27	- 27	- 18	- 35	- 40	- 35	- 45	- 45	---	

Schematics

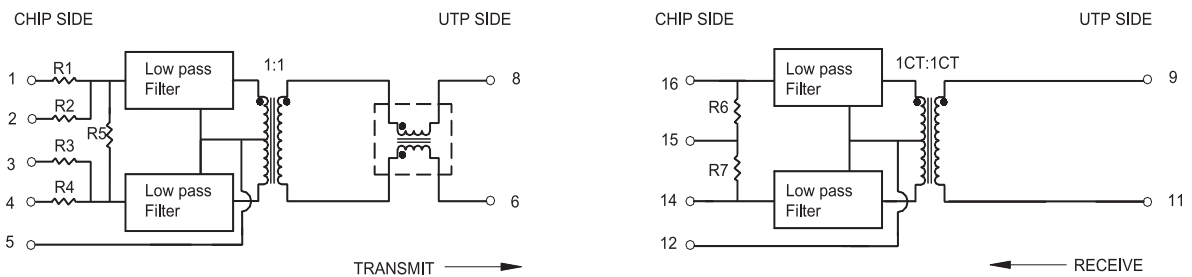
NT-14000, NT-14001, NT-14002



Resistor Values (OHMs)

Part number	R1	R2	R3	R4	R5	R6	R7
NT-14000	61.9	422	61.9	422	1210	49.9	49.9
NT-14001	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NT-14002	274	66.5	66.5	274	806	49.9	49.9

NT-14004, NT-14005, NT-14006, NT-14007



Note: NT-14007 has no Common Mode Choke

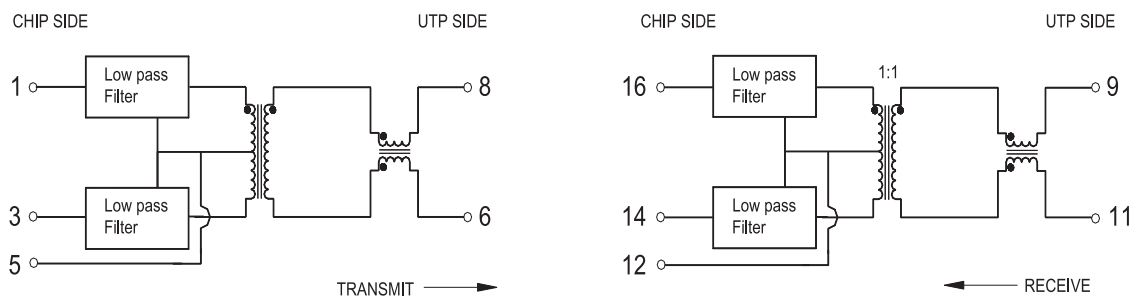
Resistor Values (OHMs)

Part number	R1	R2	R3	R4	R5	R6	R7
NT-14004	348	53.6	53.6	348	806	49.9	49.9
NT-14005	61.9	422	61.9	422	1210	49.9	49.9
NT-14006	390	63.4	390	63.4	N/A	49.9	49.9
NT-14007	39	N/A	39	N/A	N/A	49.9	49.9

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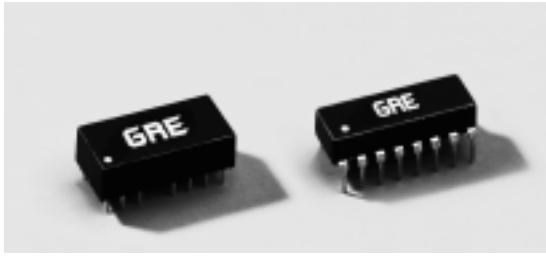
Schematics

NT-14003, NT-14008



Turn Ratio: NT-14003 is 1:1, NT-14008 is 1:1.414.

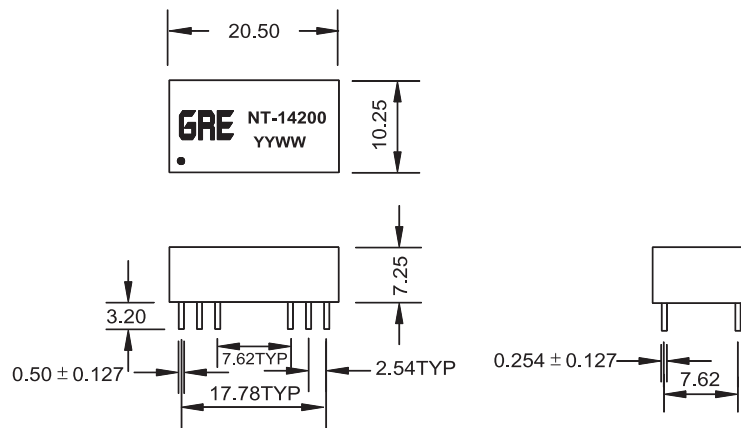
Note: All modules are shipped in tubes. Tape and Reel is to be specified.



Features:

- Meets IEEE802.3 10Base-T specifications
- Design for MAUs, hub and motherboard applications
- Provides 1500Vrms minimum isolation

Mechanical



Unit: mm

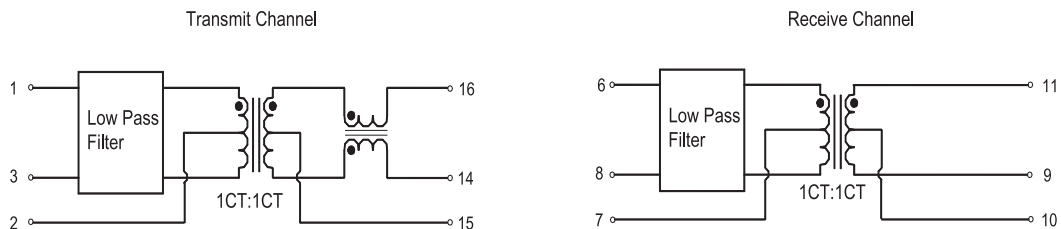
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Electrical Specifications@25°C

Operating Temperature 0°C~70°C

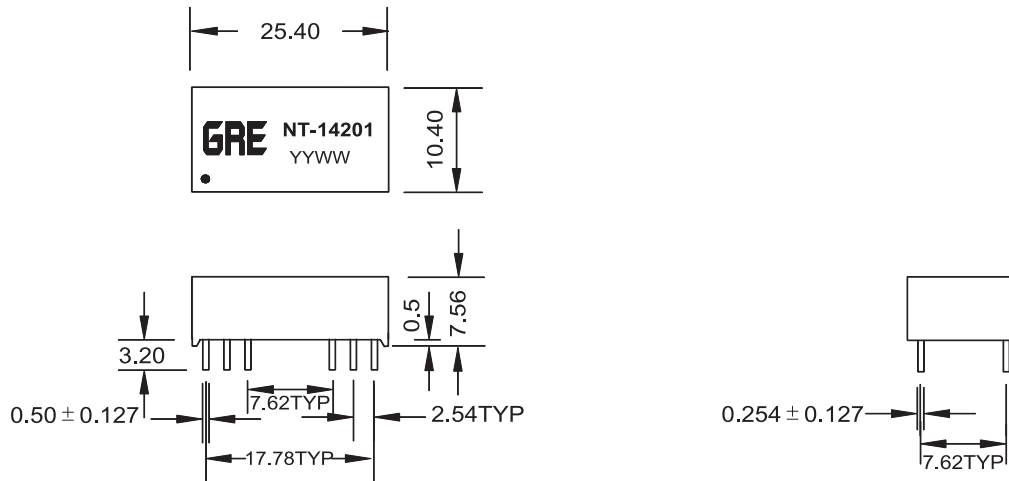
Part Number	Insertion Loss (dB MAX)		Attenuation (dB MIN)					Return Loss	Crosstalk	Common Mode Rejection	Hi - pot
	1~10MHz	20MHz	25MHz	30MHz	35MHz	50MHz	100OHMs 5~10MHz	(dB MIN) 5~10MHz	(XMIT) (dB MIN) 1~100MHz		
NT-14200	TX	-1.0	-7	-19	-32	-33	-35	-18	-35	-28	1500Vrms
	RX	-1.0	-6	-14	-20	-26	-31	-18		-25	1500Vrms

Schematics



ETHERNET 10BASE-T LAN FILTER MODULES • 16PINS THROUGH HOLE

Mechanical



Unit: mm

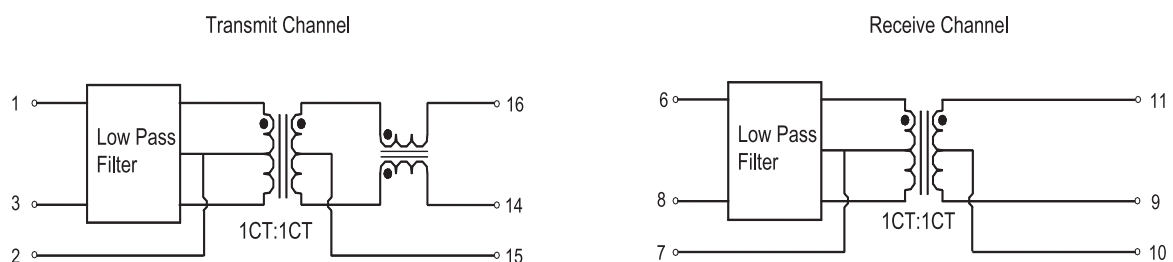
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Electrical Specifications@25°C

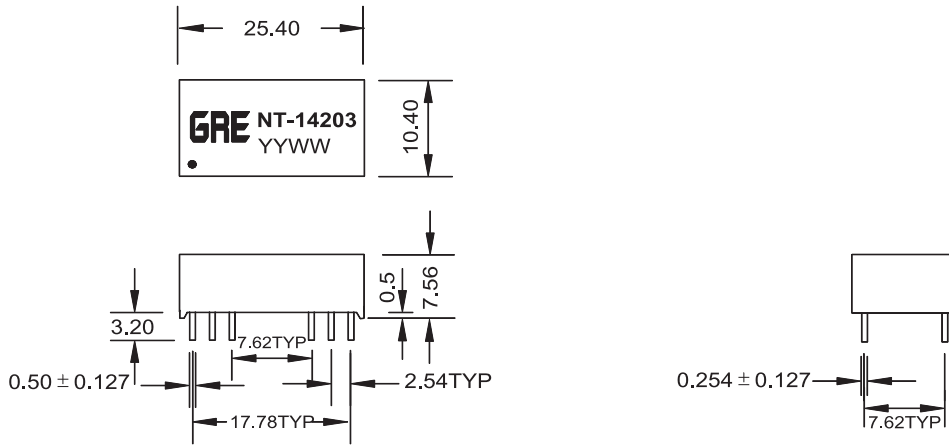
Operating Temperature 0°C~70°C

Part Number	Insertion Loss (dB MAX)	Attenuation (dB MIN)						Return Loss 100OHMs 5~10MHz	Crosstalk (dB MIN) 5~10MHz	Common Mode Rejection (XMIT) (dB MIN) 1~100MHz	Hi-pot
		1~10MHz	20MHz	25MHz	30MHz	35MHz	40MHz				
NT-14201	TX	-1.0	-7	-19	-32	-33	-35	-18	-35	-28	1500Vrms
	RX	-1.0	-6	-14	-20	-26	-31	-18		-25	1500Vrms

Schematics



Mechanical



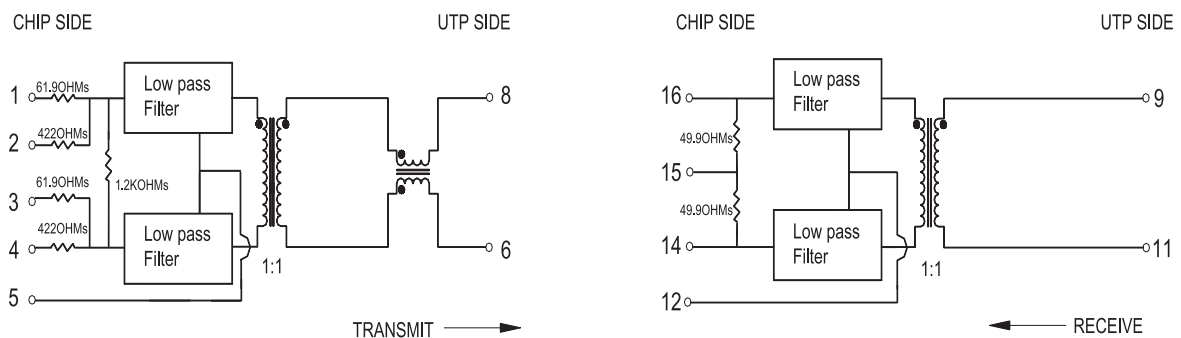
Unit: mm
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Electrical Specifications@25°C

Operating Temperature 0°C~70°C

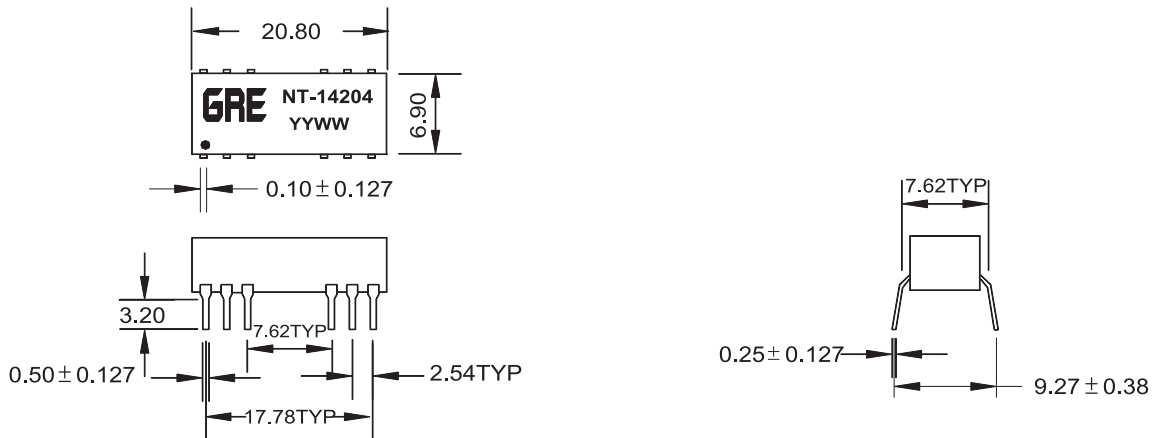
Part Number	Insertion Loss (dB MAX)		Attenuation (dB MIN)					Return Loss	Crosstalk	Common Mode Rejection	Hi-pot
	1~10MHz	20MHz	25MHz	30MHz	35MHz	50MHz	100OHMs	(dB MIN)	(XMIT) (dB MIN)		
NT-14203	TX	-1.0	-7	-19	-30	-30	-35	-18	-35	-28	1500Vrms
	RX	-1.0	-6	-14	-20	-20	-20	-18		-25	1500Vrms

Schematics



ETHERNET 10BASE-T LAN FILTER MODULES • 16PINS THROUGH HOLE

Mechanical



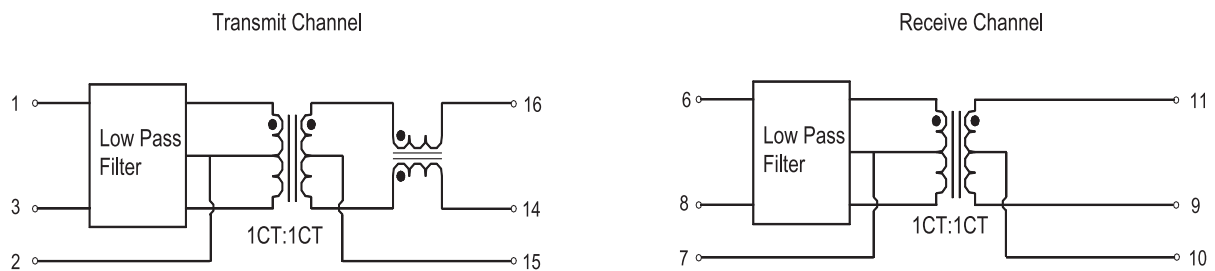
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Operating Temperature 0°C~70°C

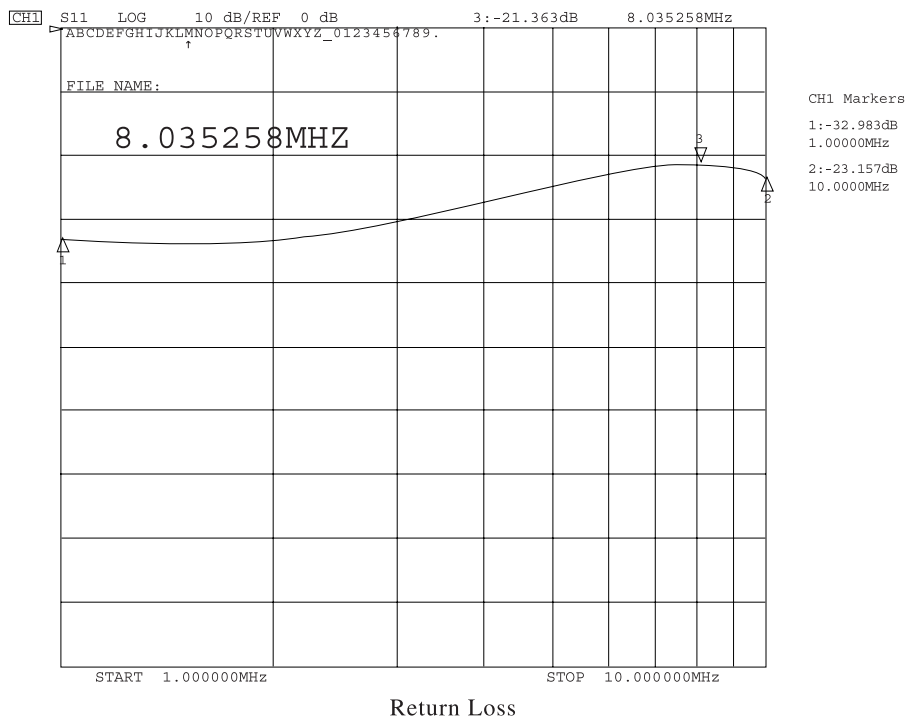
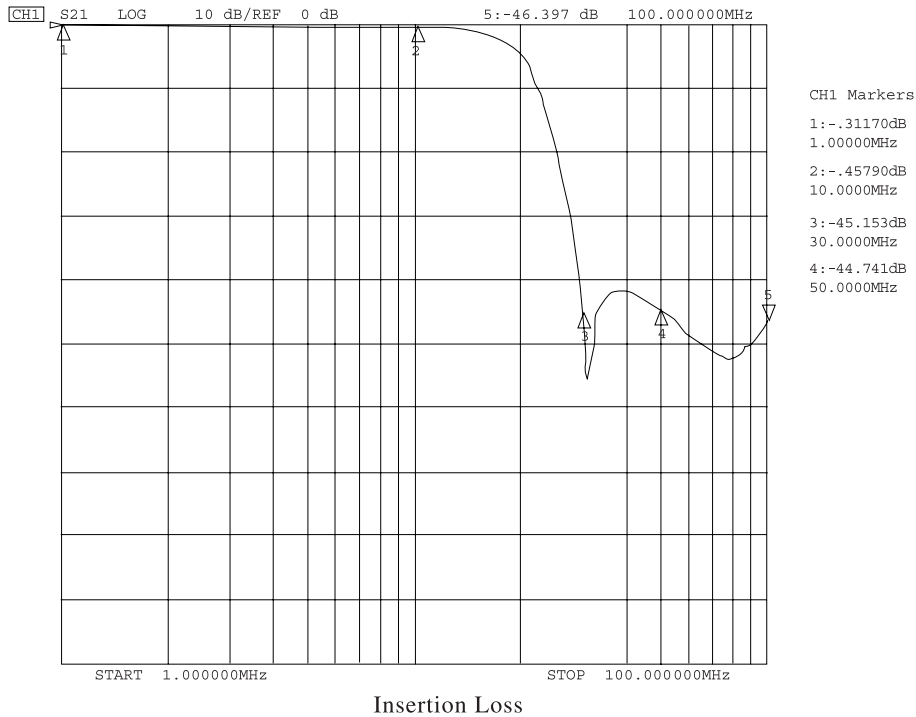
Part Number	Insertion Loss (dB MAX)		Attenuation (dB MIN)					Return Loss	Crosstalk	Common Mode Rejection	Hi-pot
	1~10MHz	20MHz	25MHz	30MHz	35MHz	50MHz	100OHMs	(dB MIN)	(XMIT) (dB MIN)		
NT-14204	TX	-1.0	-7	-19	-32	-33	-35	-18		-28	1500Vrms
	RX	-1.0	-6	-14	-20	-26	-31	-18	-35	-25	1500Vrms

Schematics



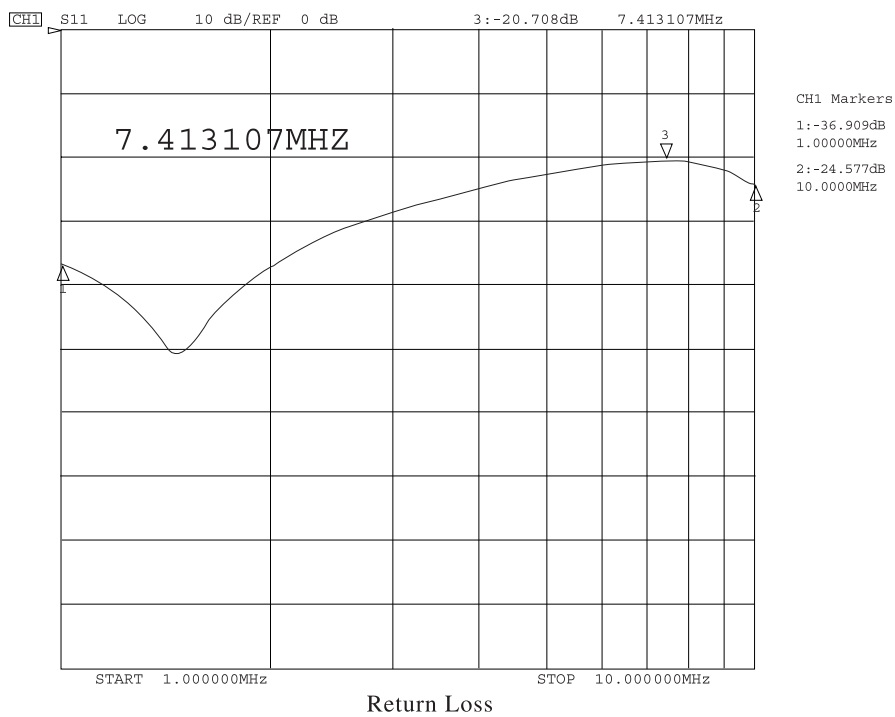
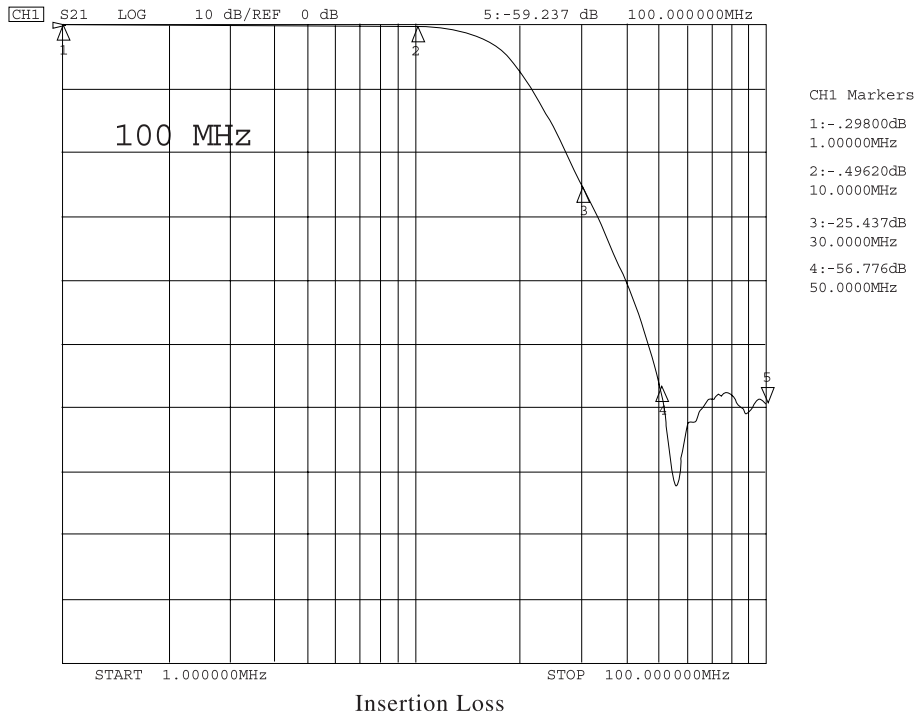
TYPICAL TEST GRAPHS FOR 10BASE-T LOW PASS FILTER ON HP8753ES S-PARAMETER NETWORK ANALYZER

NT-14001 TX Channel Test Graphs



TYPICAL TEST GRAPHS FOR 10BASE-T LOW PASS FILTER ON HP8753ES S-PARAMETER NETWORK ANALYZER

NT-14001 RX Channel Test Graphs



NT-14001 Crosstalk Test Graphs

