

Features

Comply with ROHS requirements.

Comply with Halogen Free requirements.

IEEE 802.3u and ANSIX3.263 standards including 350uH OCL with 8mA bias

Symmetrical TX and RX channels for auto MDI/MDIX capability

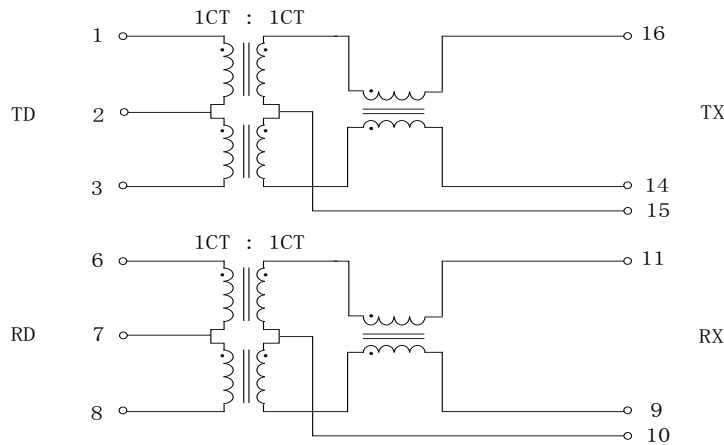
Electrical Specifications @25°C

Rise Time & Fall Time @5.0ns(Max), Isolation Hi-pot:1500Vrms(pri/sec), Pri.OCL:Tx&Rx:350uH min @Idc=8mA

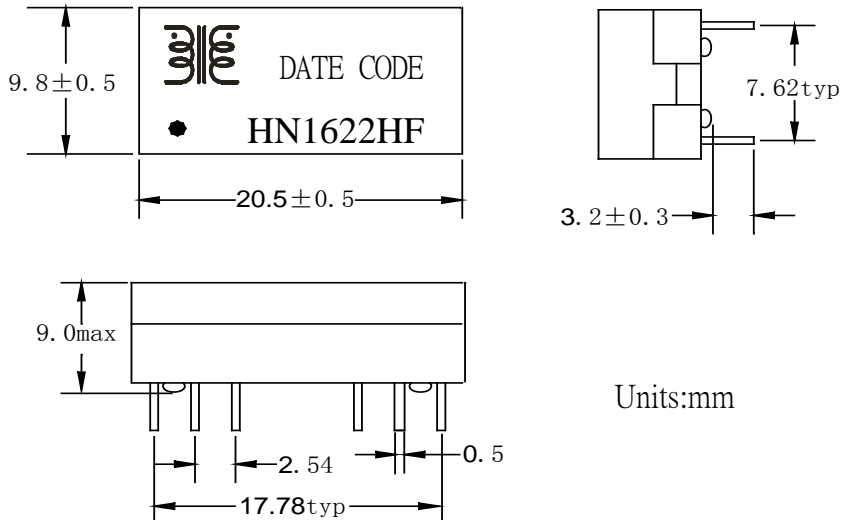
Part No.	Insertion Loss (dB Max)	Return Loss (dB Min)				Cross Talk (dB Min)		DCMR (dB Min)	CWW (pF typ)	Turn Ratio Tx/Rx (±5%)
		0.5-30	40	50	60-80	0.5-60	60-100			
		MHz				MHz				
HN1622HF	-1.1	-18	-14.4	-13.1	-12	-40	-35	-30	25	1CT:1CT/1CT:1CT

Operating Temperature: 0°C TO 70°C

SCHEMATIC



DIMENSION



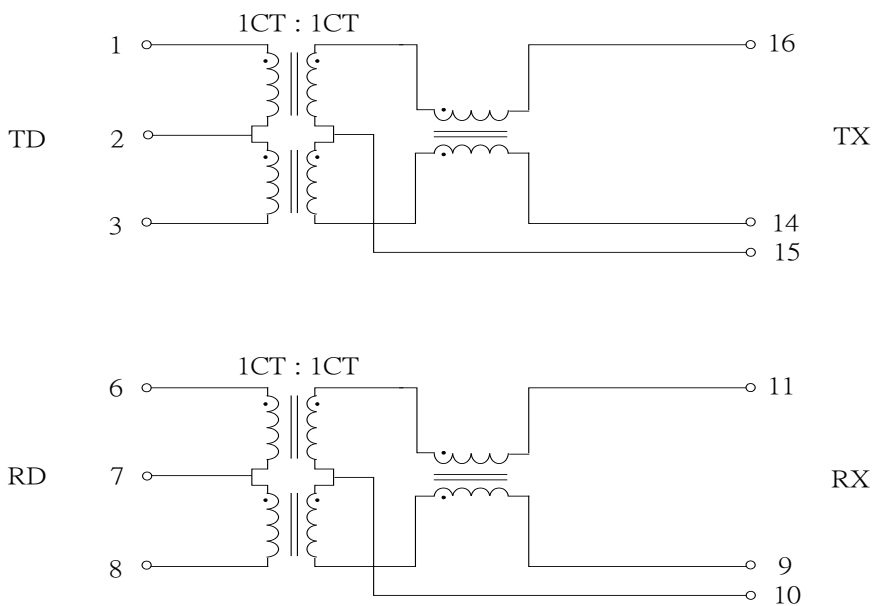
Units:mm

SAMPLE TEST DATA

A. ELECTRICAL SPECIFICATIONS @25°C

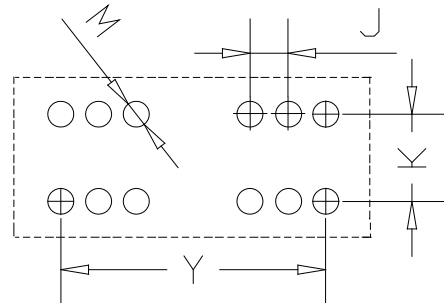
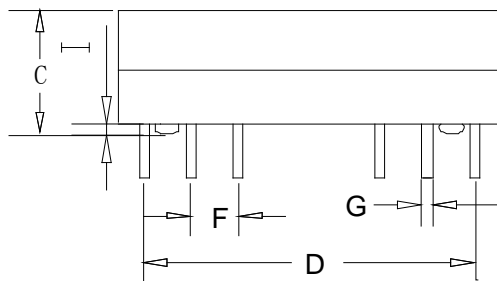
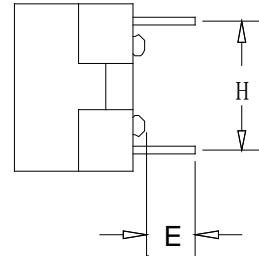
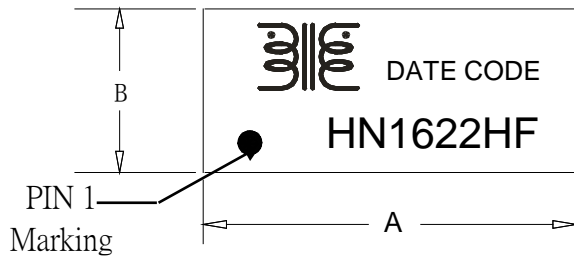
Inductance OCL:	350uH Min @ 100KHz,0.2V,8mA DC BIAS	
Leakage Inductance:	0.5uH Max @100KHz,0.2V	
Interwinding Capacitance:	25PF TYP @100KHz,0.2V	
Turn Ratio:	1CT:1CT(TX)/1CT:1CT(RX)±5%	
Polarity:	1-16,6-11 In-Phase	
Insertion Loss :	1-100MHz	-1.1dB Max
Return Loss :	0.5-30MHz	-18dB Min
	40MHz	-14.4dB Min
	50MHz	-13.1dB Min
	60-80MHz	-12dB Min
Cross Talk:	0.5-60MHz	-40dB Min
	60-100MHz	-35dB Min
DCMR:	0.5-100MHz	- 30dB Min
Isolation HI-POT:	1500Vrms 10mA 1S	
Product Type:	Comply with ROHS requirements.	
	Comply with Halogen Free requirements.	
Operating Temperature	0°C to 70°C	

B. SCHEMATIC:



SAMPLE TEST DATA

C. DIMENSIONS & MARKING:



DIM	MILLIMETERS(mm)		INCHES(inch)	
	MIN	MAX	MIN	MAX
A	20.00	21.00	0.787	0.827
B	9.30	10.30	0.366	0.406
C	9.0(max)		0.354(max)	
D	17.78(typical)		0.700(typical)	
E	2.90	3.50	0.114	0.138
F	2.54(typical)		0.100(typical)	
G	0.50(typical)		0.020(typical)	
H	7.62(typical)		0.300(typical)	
I	0.20	0.50	0.008	0.020
M	0.90(typical)		0.035(typical)	
J	2.54(typical)		0.100(typical)	
K	7.62(typical)		0.300(typical)	
Y	17.78(typical)		0.700(typical)	



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SAMPLE TEST DATA

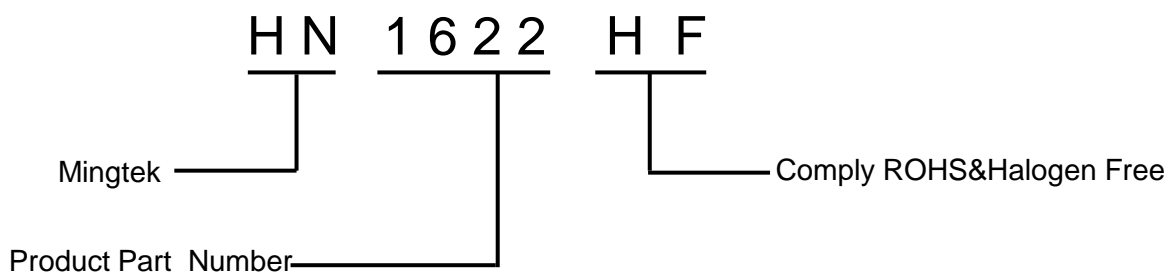
D. HAZARDOUS TEST REPORT:

Test Item(s)	Unit	Method	MDL	Result
Cadmium(Cd)	ppm	With reference to IEC 62321-5:2013 determination of Cadmium by ICP-OES	2	N.D
Mercury(Hg)	ppm	With reference to IEC 62321-4:2013 determination of Mercury by ICP-OES	2	N.D
Lead(Pb)	ppm	With reference to IEC 62321-5:2013 determination of Lead by ICP-OES	1000	<1000
Chromium VI(Cr+6)	ppm	With reference to IEC 62321:2008 and performed by UV-VIS	2	N.D
PBBs(Polybrominated biphenyls)(CAS NO:67774-32-7)	ppm	With reference to IEC 62321:2008 and performed by GC/MS	5	N.D
PBBEs(PBDEs) (Polybrominated biphenyl ethers)	ppm	With reference to IEC 62321:2008 and performed by GC/MS	5	N.D
Halogen-chlorine(Cl)	ppm	With reference to BS EN 14582:2007. Analysis was perfmed by IC.	50	N.D
Halogen-Bromine(Br)	ppm	With reference to BS EN 14582:2007. Analysis was perfmed by IC.	50	N.D

NOTE:

- (1) N.D = Not detected(<MDL)
- (2) ppm = mg/kg
- (3) MDL = Method Detection Limit

E. PART NUMBER LEGEND:



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SAMPLE TEST DATA

SPEC \ NO	1	2	3	4	5
L:(AT 100KHz 0.2V 8mA)					
350uH Min					
1-3	525	576	693	523	594
6-8	571	620	564	645	536
LK:(AT 100KHz 0.2V)					
0.5uH Max					
1-3(16-14 short)	0.24	0.24	0.28	0.26	0.23
6-8(11-9 short)	0.24	0.26	0.24	0.25	0.24
CWW:(AT 100KHz 0.2V)					
25PF TYP					
1-3 TO 16-14	23.4	22.3	21.5	24.8	24.4
6-8 TO 11-9	23.9	25.3	21.6	22.7	21.8
Turns Ratio:					
(1-3):(16-14)=1CT:1CT±5%	OK	OK	OK	OK	OK
(6-8):(11-9)=1CT:1CT±5%	OK	OK	OK	OK	OK
HI-POT:					
AT:1500Vrms 10mA 1S					
1-3 TO 16-14	OK	OK	OK	OK	OK
6-8 TO 11-9	OK	OK	OK	OK	OK
Insertion Loss:					
-1.1dB Max(1-100MHz)					
TX(1-3):					
30MHz	0.25	0.23	0.24	0.22	0.23
40MHz	0.31	0.30	0.35	0.31	0.29
50MHz	0.32	0.35	0.41	0.33	0.30
60MHz	0.35	0.41	0.45	0.35	0.36
80MHz	0.37	0.45	0.51	0.37	0.39
100MHz	0.36	0.41	0.49	0.38	0.38
MAIN TEST EQUIPMENT					
<input checked="" type="checkbox"/> TOPWARD TPT-500 WITHSTANDING VOLTAGE TESTER <input checked="" type="checkbox"/> HEWLETT PACKARD 4277A LCZ METER <input checked="" type="checkbox"/> TH2819XB AUTOMATIC TRANSFORMER TEST SYSTEM <input checked="" type="checkbox"/> CHEN HWA 502A LOW-OHM METER <input type="checkbox"/> RF NETWORK ANALYZERS 8712ET					

Mingtek Technology Corp.

SAMPLE TEST DATA

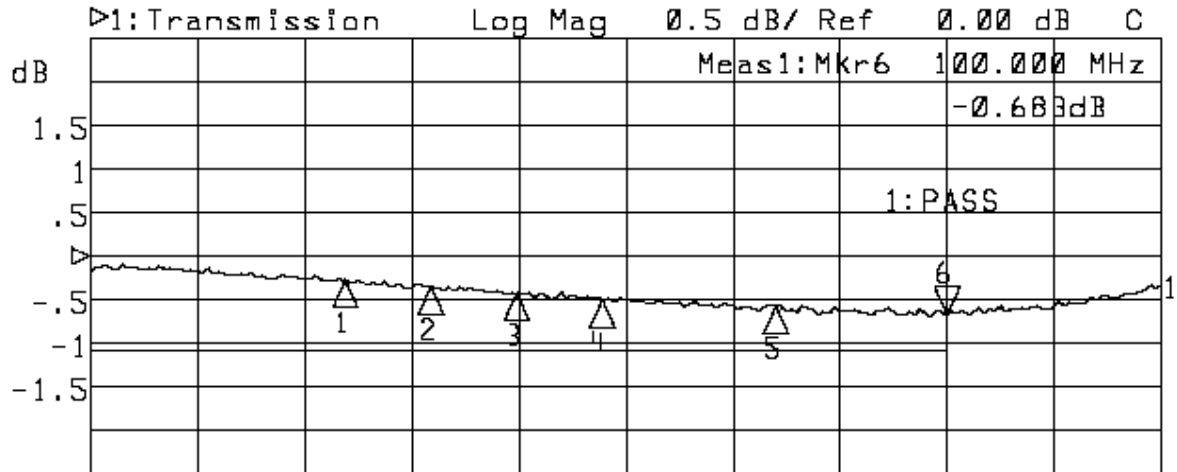
NO	1	2	3	4	5
SPEC					
RX(5-7):					
30MHz	0.22	0.22	0.25	0.22	0.22
40MHz	0.29	0.32	0.32	0.29	0.31
50MHz	0.33	0.35	0.37	0.31	0.33
60MHz	0.37	0.39	0.40	0.34	0.38
80MHz	0.39	0.45	0.44	0.36	0.42
100MHz	0.36	0.41	0.45	0.32	0.44
Return Loss:					
-18dB Min(0.5-30MHz)					
-14.4dB Min(40MHz)					
-13.1dB Min(50MHz)					
-12dB Min(60-80MHz)					
TX(1-3):					
30MHz	32.8	24.5	24.1	29.7	32.5
40MHz	29.3	21.8	21.5	26.6	29.1
50MHz	26.8	20.0	19.7	24.3	26.5
60MHz	24.4	18.7	18.3	22.3	24.2
80MHz	21.8	18.0	17.5	20.2	21.7
RX(5-7):					
30MHz	29.2	25.0	27.1	29.2	26.7
40MHz	26.2	22.4	24.3	26.1	24.1
50MHz	24.1	20.5	22.4	23.8	22.3
60MHz	22.4	19.1	20.8	21.6	20.8
80MHz	20.9	18.3	20.4	19.2	20.2
Cross Talk:					
-40dB Min (0.5-60MHz)					
-35dB Min (60-100MHz)					
30MHz	58.9	58.4	57.0	56.0	55.3
60MHz	48.7	48.4	48.9	48.8	48.1
80MHz	44.0	43.8	45.3	45.7	44.9
100MHz	40.4	40.3	42.7	43.3	42.4
MAIN TEST EQUIPMENT					
<input type="checkbox"/> TOPWARD TPT-500 WITHSTANDING VOLTAGE TESTER <input type="checkbox"/> HEWLETT PACKARD 4277A LCZ METER <input type="checkbox"/> TH2819XB AUTOMATIC TRANSFORMER TEST SYSTEM <input type="checkbox"/> CHEN HWA 502A LOW-OHM METER <input checked="" type="checkbox"/> RF NETWORK ANALYZERS 8712ET					

SAMPLE TEST DATA

P/N:HNI622HF

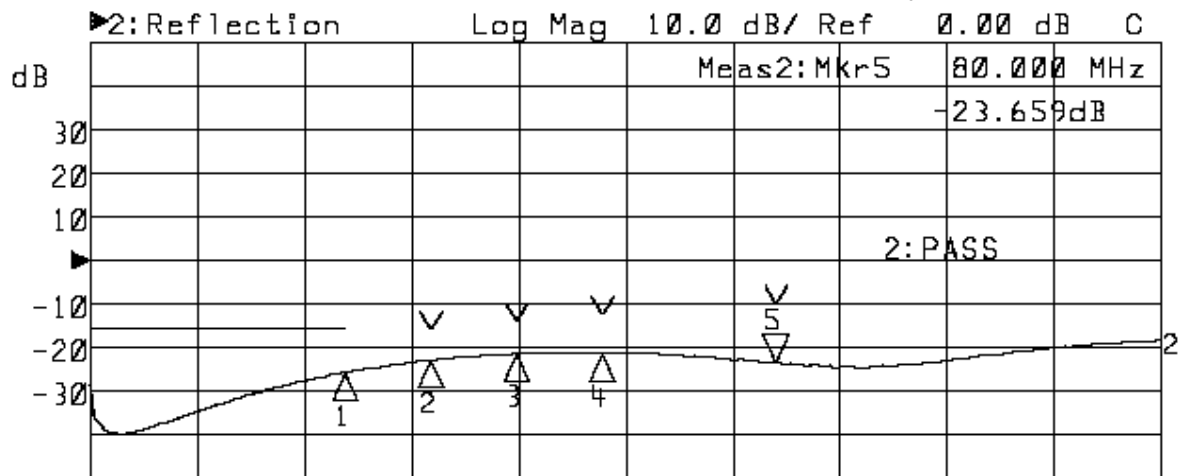
NO:01

Insertion Loss and Return Loss (TX)



Start 0.300 MHz

Stop 125.000 MHz



Start 0.300 MHz

Stop 125.000 MHz

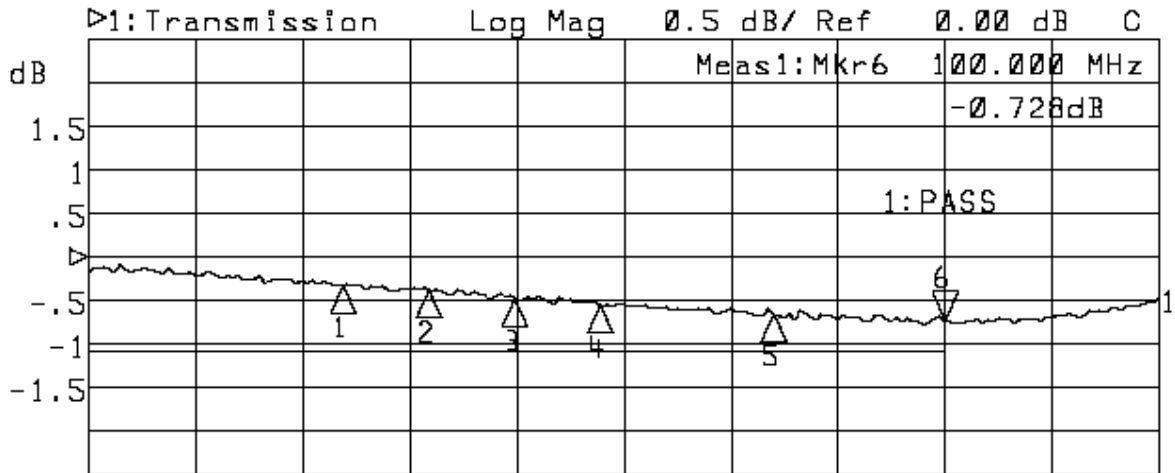
1:Mkr (MHz)	dB	2:Mkr (MHz)	dB
1: 30.0000	-0.277	1: 30.0000	-25.896
2: 40.0000	-0.359	2: 40.0000	-23.080
3: 50.0000	-0.433	3: 50.0000	-21.603
4: 60.0000	-0.502	4: 60.0000	-21.262
5: 80.0000	-0.580	5: 80.0000	-23.659
6: 100.0000	-0.683		

SAMPLE TEST DATA

P/N:HNI622HF

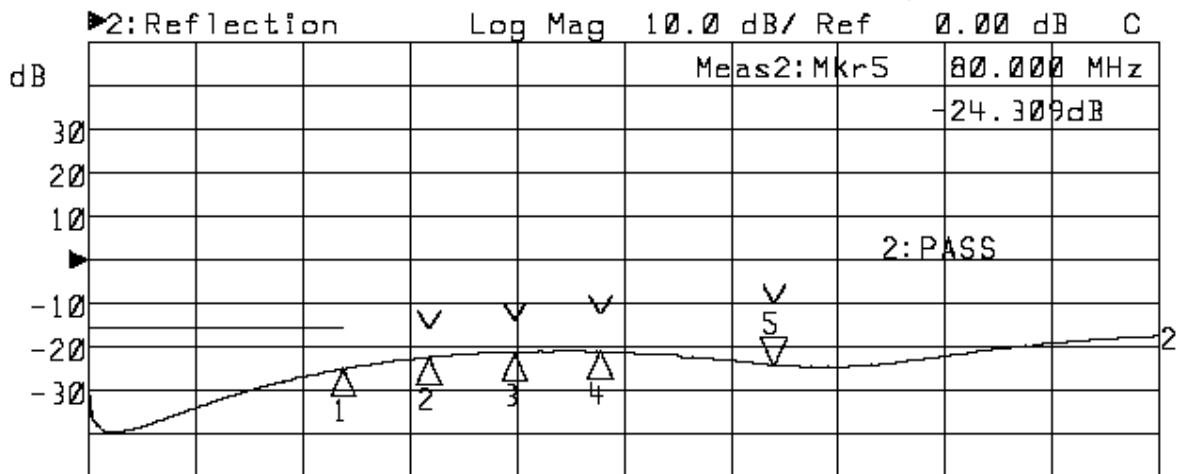
NO:01

Insertion Loss and Return Loss (RX)



Start 0.300 MHz

Stop 125.000 MHz



Start 0.300 MHz

Stop 125.000 MHz

1:Mkr (MHz)	dB	2:Mkr (MHz)	dB
1: 30.0000	-0.320	1: 30.0000	-25.206
2: 40.0000	-0.387	2: 40.0000	-22.536
3: 50.0000	-0.465	3: 50.0000	-21.260
4: 60.0000	-0.560	4: 60.0000	-21.236
5: 80.0000	-0.651	5> 80.0000	-24.309
6> 100.0000	-0.728		

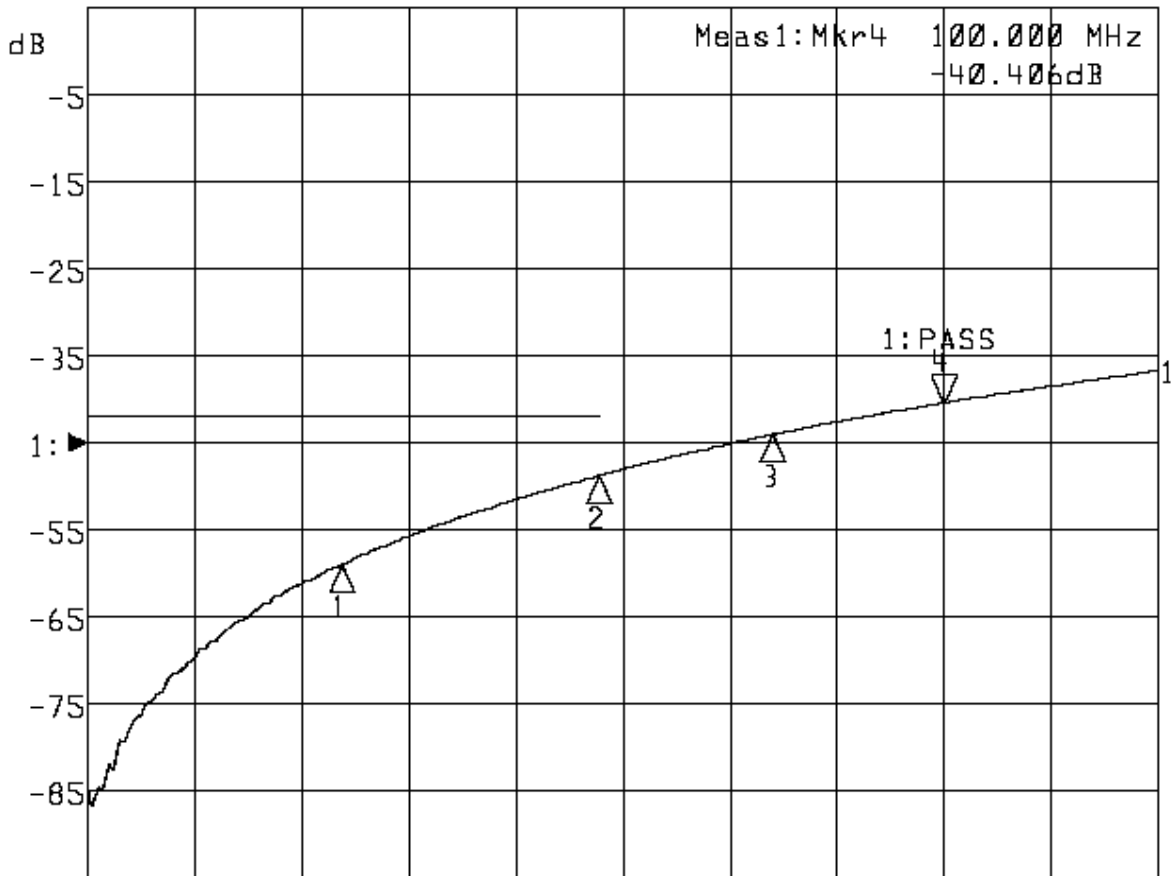
SAMPLE TEST DATA

P/N:HNI622HF

NO:01

Cross Talk:

▶1: Transmission Log Mag 10.0 dB/ Ref -45.00 dB C
 ▼2: Off



Start 0.300 MHz

Stop 125.000 MHz

1: Mkr (MHz)	dB	2: Mkr (MHz)	dB
1:	30.0000		-58.999
2:	60.0000		-48.750
3:	80.0000		-44.080
4>	100.0000		-40.406

變壓器的絕緣體與耐壓值測試表

項目	內容	規格值	實測值
1.	外觀 Appearance	依規範	、
2.	導體徑 mm Bare Wire Dia	+ 0.008-0.008	0.09
3.	完成外徑 mm Overall Dia	0.116-0.136	0.128
4.	針孔 (常態) Pin Hole (Normal State)	03 MAX	0
5.	針孔 (捲繞, 伸長 5%) Pin Hole (Elongated)	無龜裂	符合
6.	絕緣破壞電壓 V Dielectric Strength AC	3500 MIN	14000
7.	伸長率 % Elongation	15 MIN	44
8.	導體電阻 20°C Ω / km Conductor Resistance	2647.000 MAX	2190.000
9.	直焊性 (400 °C) sec Solderability	2.0 MAX	0.7
10.	耐軟性 (200 °C) 以上 Thermoplastic Flow	無短路	符合
11.	耐熱衝擊 (180 °C) Heat Shock	無龜裂	符合
12.	密著性 Adtience	無龜裂	符合
13.	耐溶性 Resistance to Solvent	無龜裂	符合
14.	接著力 g Bonding Strength Test	-----	-----
15.	溶解性 % Solution Test	-----	-----

*針腳.腳面之上錫功能測試

1. 上錫條件

錫材：Sn99.3/cu 0.7

助焊劑：R Type Flux

錫爐溫度：245 ± 5°C

上錫時間：5 秒

2. 在每批產品中隨機抽取5只做上錫功能測試

3. 用顯微鏡檢查每只產品的任一針腳必須有 95 % 以上的面積上錫良好

4. 每個經上錫測試後的產品都要測試通過後才能出貨

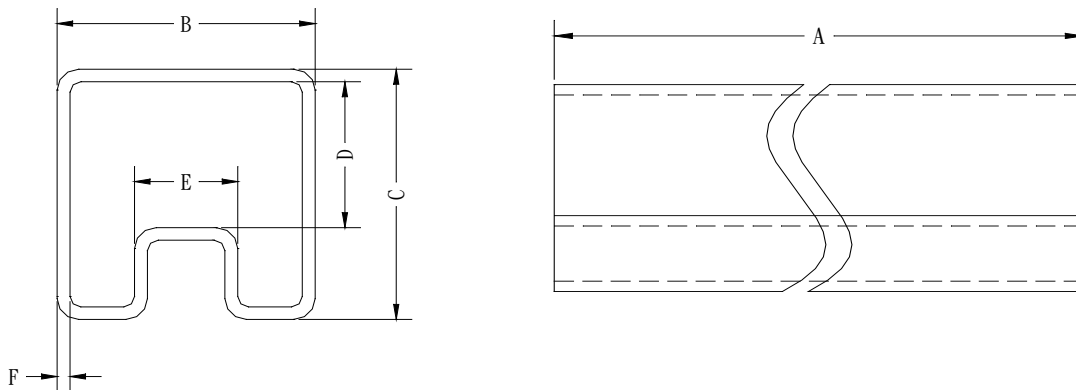
SAMPLE TEST DATA

F. PACKAGE CRITERION:

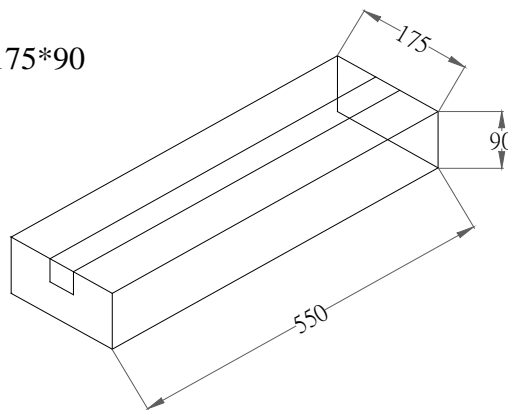
1. PACKAGE MATERIAL:

1.1 Tube: 545*11.5*14.5

units: m/m

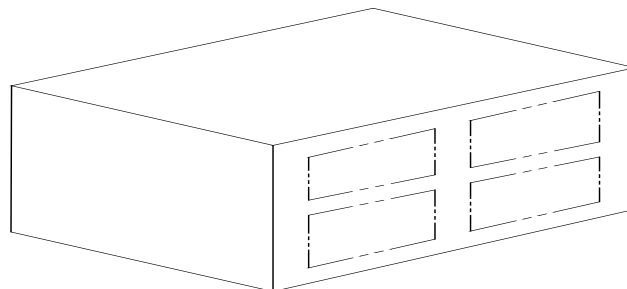


1.2. Inner Carton: 550*175*90



units: m/m

1.3. Export Carton: 560*375*205



2. PACKAGE QUANTITY:

One Tube=25 Pcs

One Inner carton =1250 Pcs

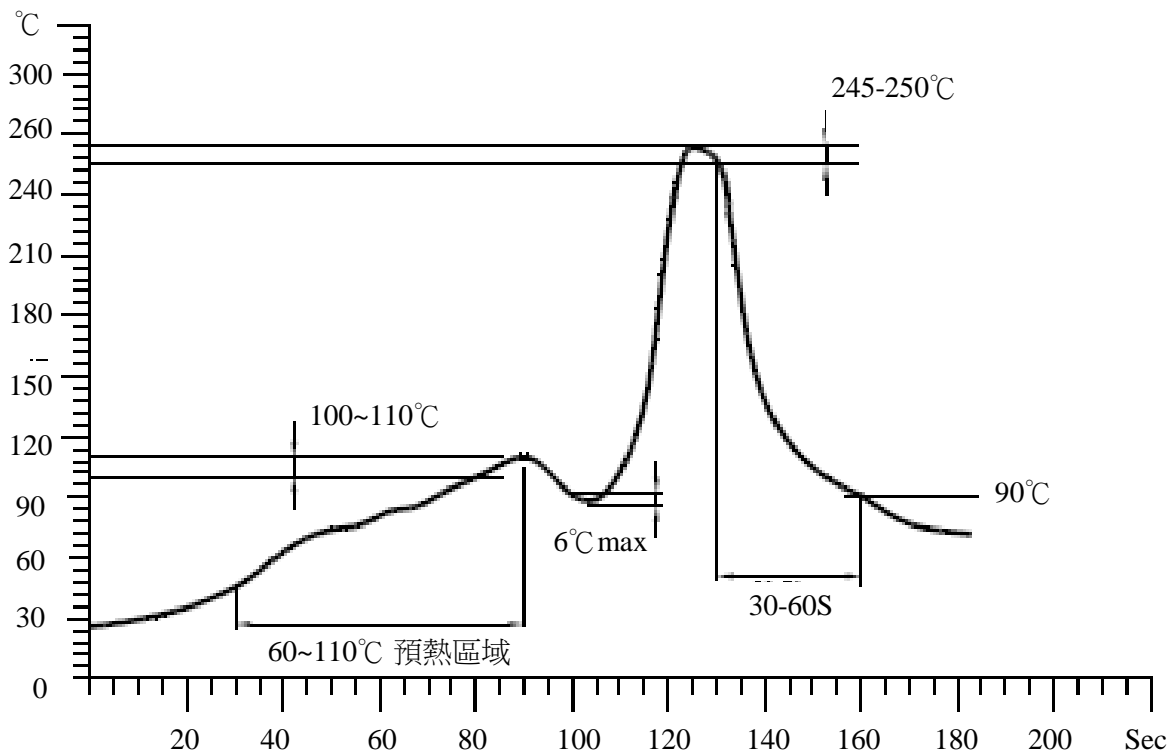
One Export carton =5000 Pcs

SAMPLE TEST DATA

G: DIP無鉛產品波峰焊溫度曲線圖:

一.無鉛制程焊接條件:

1. 適用產品型號: 所有DIP類產品
2. 焊接方式: 波峰焊接
3. 焊接溫度曲線(如下):



注:以上溫度曲線僅供參考