

# 湖北磁创电子科技有限公司

## 产品承认书

CUSTOMER:

CUSTOMER P/N:

PPT P/N :

**PTG-9682**

DESCRIPTION:

**1000 BASE-T PoE++ TRANSFORMER MODULES**

**ATTACHMENT:**

■ SPECIFICATION

■ SAMPLE Q'TY OF SAMPLES \_\_\_\_\_ PCS



湖北磁创电子科技有限公司		<b>APPROVAL SIGNATURE</b> (客户承认签章)	
发行 <b>ISSUED</b>			
检查 <b>CHECKED BY</b>			
审核 <b>APPROVAL</b>			
日期 DATE: 年月日		日期 DATE:	

# PPT

湖北磁创电子科技有限公司

Hubei Magnetic Electron Technology Co.,Ltd

TEL:(86)755-88367400 FAX: (86)755-29625890 Email: sales@pptchina.cn

PLEASE REPLY THIS SHEET TO US AFTER SIGNATURE(请签字后回传本页)

## 1. FEATURES:

- 1.1 Meet The isolation, Insertion Loss and Return Loss Requirements of IEEE802.3.
- 1.2 Designed for long haul Gigabit Ethernet 100/1000Base-T, full Quad channels applications.
- 1.3 Supports PoE++ and Auto MDIX in 16 pairs of category 5 UTP cable.
- 1.4 Cable interface for isolation and low common mode emissions.
- 1.5 DC Current/Voltage Rating-PSE PINS 900mA MAX @ 57 V (Continuous) .
- 1.6 Peak reflow temperature rating 260°C .
- 1.7 Operating temperature rang is -40°C to +85°C .
- 1.8 Storage temperature rang -40°C to +125°C .

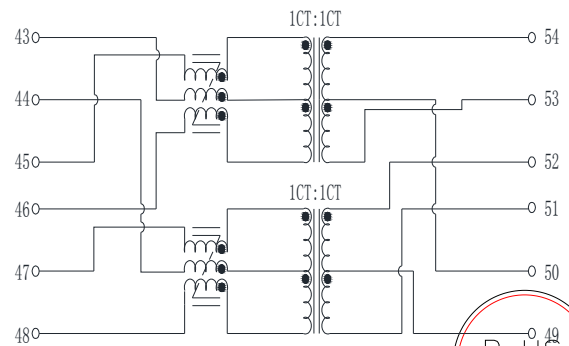
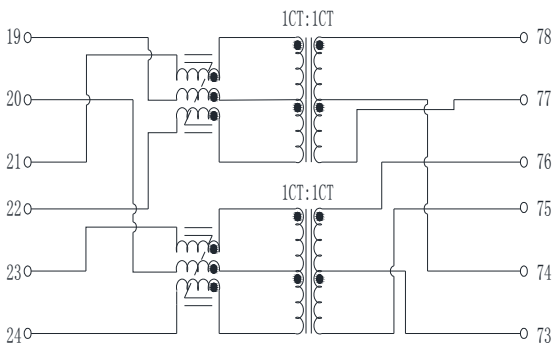
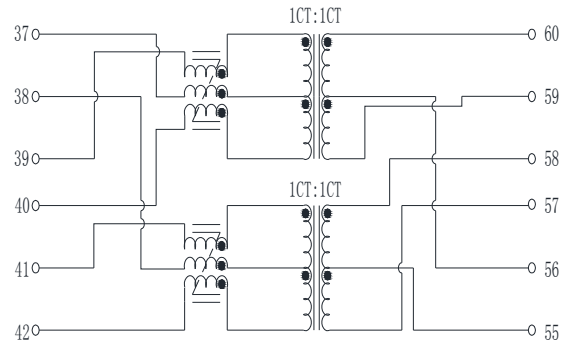
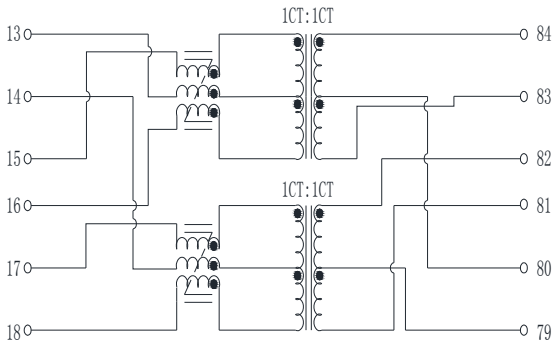
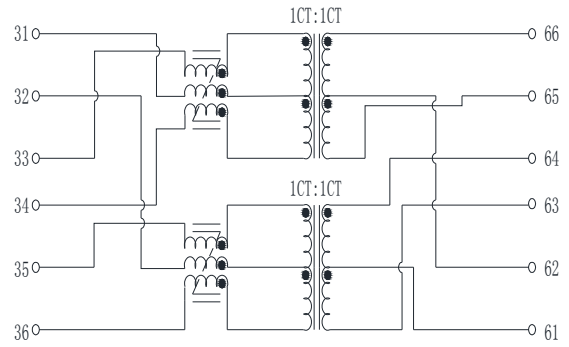
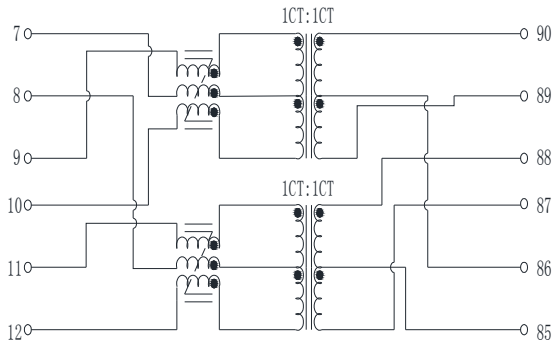
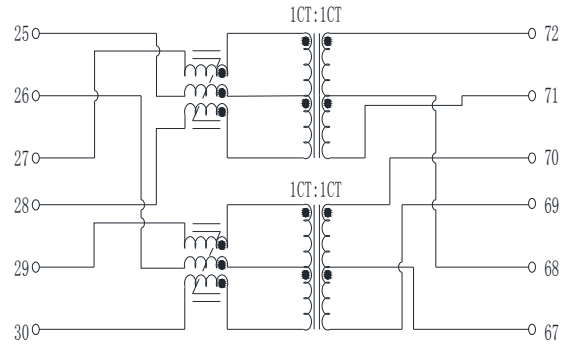
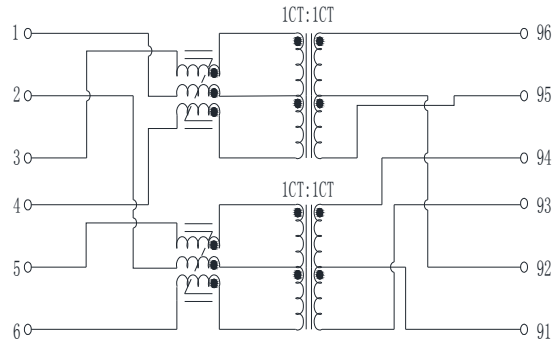
## 2. ELECTRICAL SPECIFICATIONS @25°C

- 2.1 OCL : 350uH Min. @100 KHz, 100mV, With 24mA DC.
- 2.2 Turn Ratio : 1CT:1CT±5%
- 2.3 DCR : PRI: 0.65Ω Max
- 2.4 Leakage Inductance: 0.5uH Max @100KHz , 100mV
- 2.5 CW/W : 50 pF Max. @100KHz, 100mV
- 2.6 Insertion Loss :-1.0dB Max @1-100MHz
- 2.7 Return Loss : -10 dB MIN @100MHz
- 2.8 Cross Talk : -33.0 dB MIN @100 MHz
- 2.10 CMRR : -30.0 dB MIN @100 MHz
- 2.11 DCMR: -30.0 dB MIN @100 MHz
- 2.12 Isolation HI-POT: 1500VAC, 60Second.
- 2-13 DC Current/Voltage Rating - PSE PINS: 900mA Max @ 57V (Continuous)



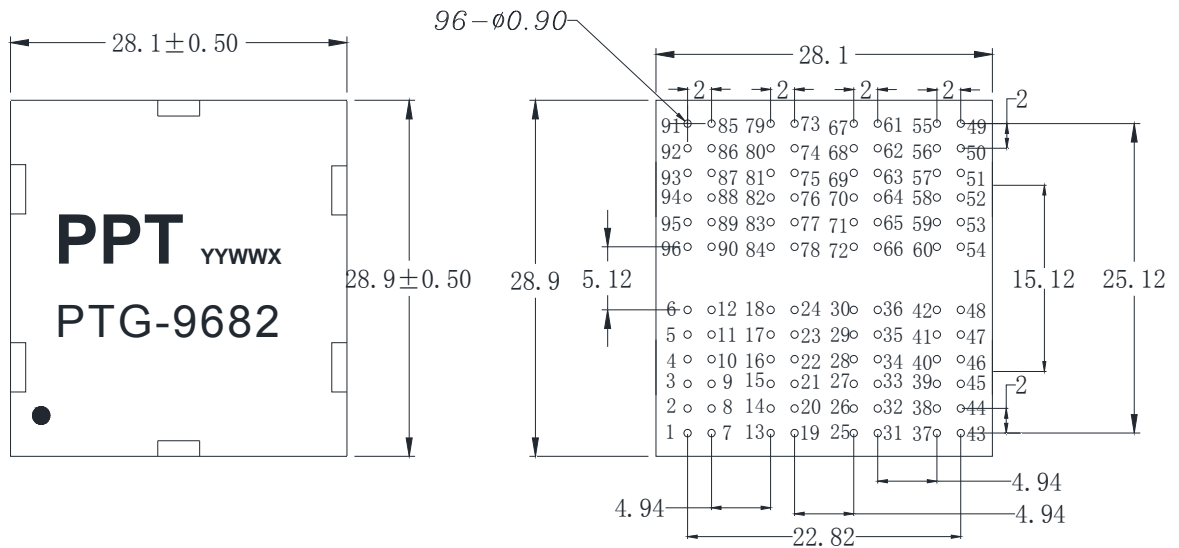
DRAWN BY:	CHECKED BY:	APPROVED BY:	CUSTOMER:
			PART NO. :PTG-9682
<b>PPT</b>	Hubei Magnetic Electron Technology Co.,Ltd		REV.:G
			PAGE: 2 OF 17

### 3. SCHEMATICS:

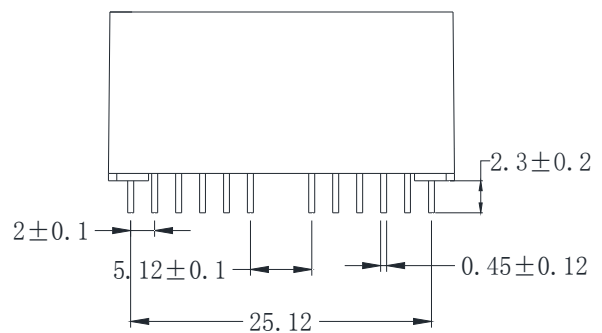
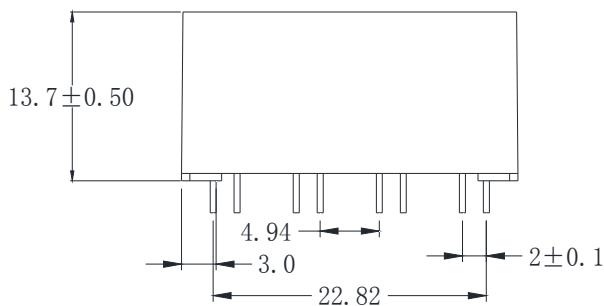


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# 4. DIMENSIONS & MARKING:



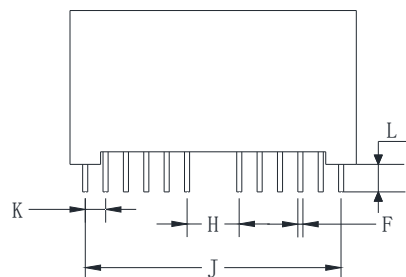
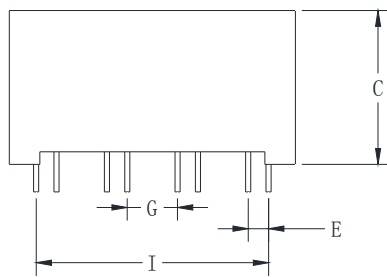
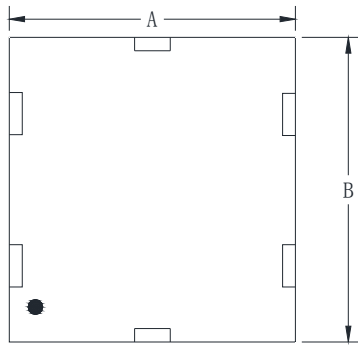
(Component Side)  
Suggested PWB Layout  
Tolerances: .xx ± 0.05



Dimension : mm  
Unless otherwise specified , all tolerance are ± 0.25



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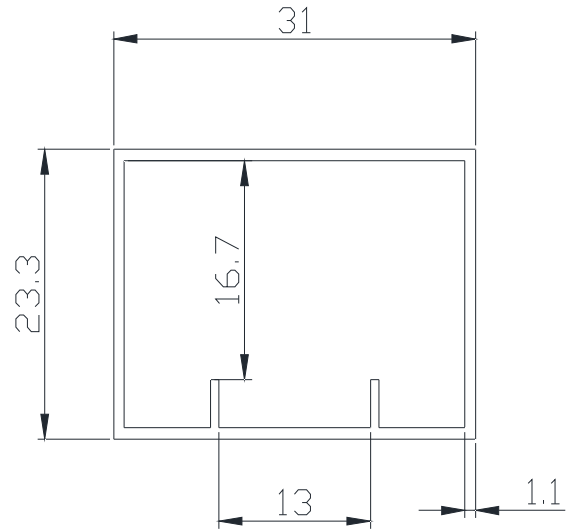
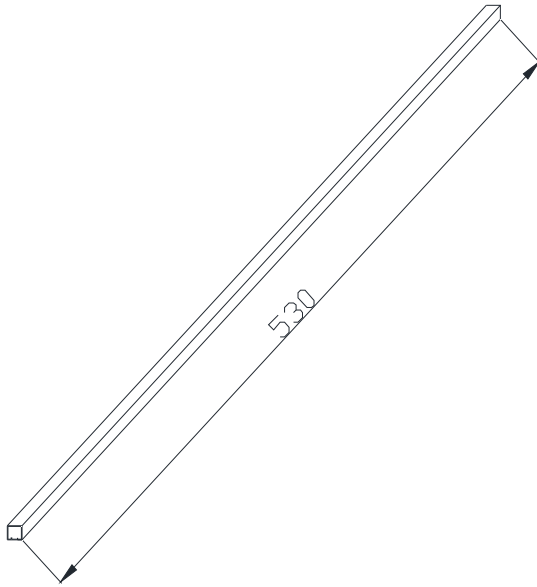
磁创成品PTG-9682外观尺寸测量数据

内容 项目	SPEC	1	2	3	4	5	判定	单位
A	28.1±0.50	28.12	28.13	28.09	28.08	28.11	OK	mm
B	28.9±0.50	28.92	28.91	28.93	28.94	28.89	OK	
C	13.70±0.50	13.72	13.70	13.73	13.76	13.75	OK	
E	2.0±0.10	2.05	2.04	2.03	2.04	2.01	OK	
F	0.45±0.12	0.46	0.46	0.45	0.46	0.45	OK	
G	4.94±0.25	4.96	4.97	4.91	4.92	4.93	OK	
H	5.12±0.10	5.11	5.13	5.15	5.14	5.09	OK	
I	22.82±0.25	22.87	22.81	22.79	22.84	22.85	OK	
J	25.12±0.25	25.13	25.14	25.15	25.11	25.10	OK	
K	2.00±0.10	2.05	1.98	2.04	2.01	2.04	OK	
L	2.30±0.20	2.31	2.30	2.28	2.31	2.27	OK	



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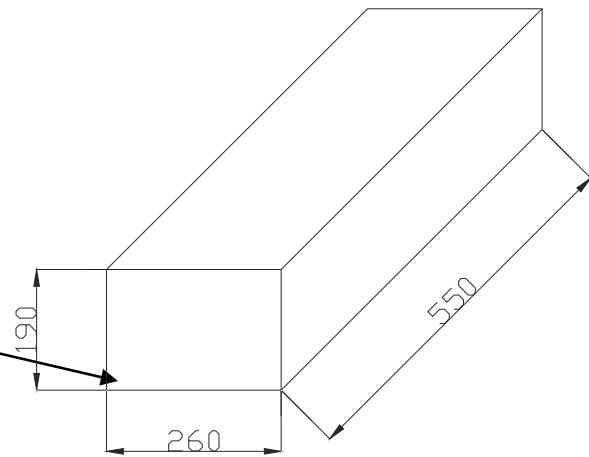
## 5. Package:



Material: Transparent PVC  
 Length:  $530 \pm 2$ mm  
 Thickness:  $0.5 \pm 0.1$ mm  
 Component: 17PCS/Tube

General Tolerance:  $\pm 0.20$ mm  
 Plug Color: White

成品入仓 FINISHED GOODS TO STORE	
产品型号: P/N	
客户代码: Cust.P/N	
随货编号: Lot NO.	
工作单号: W/O.	
数量: Qty	
印字周期: Date Code	PPT
QA确认: QA Audit	FQC
净重: Net Weight	PASS
毛重: Gress Weight	
包装日期: PKG Date	

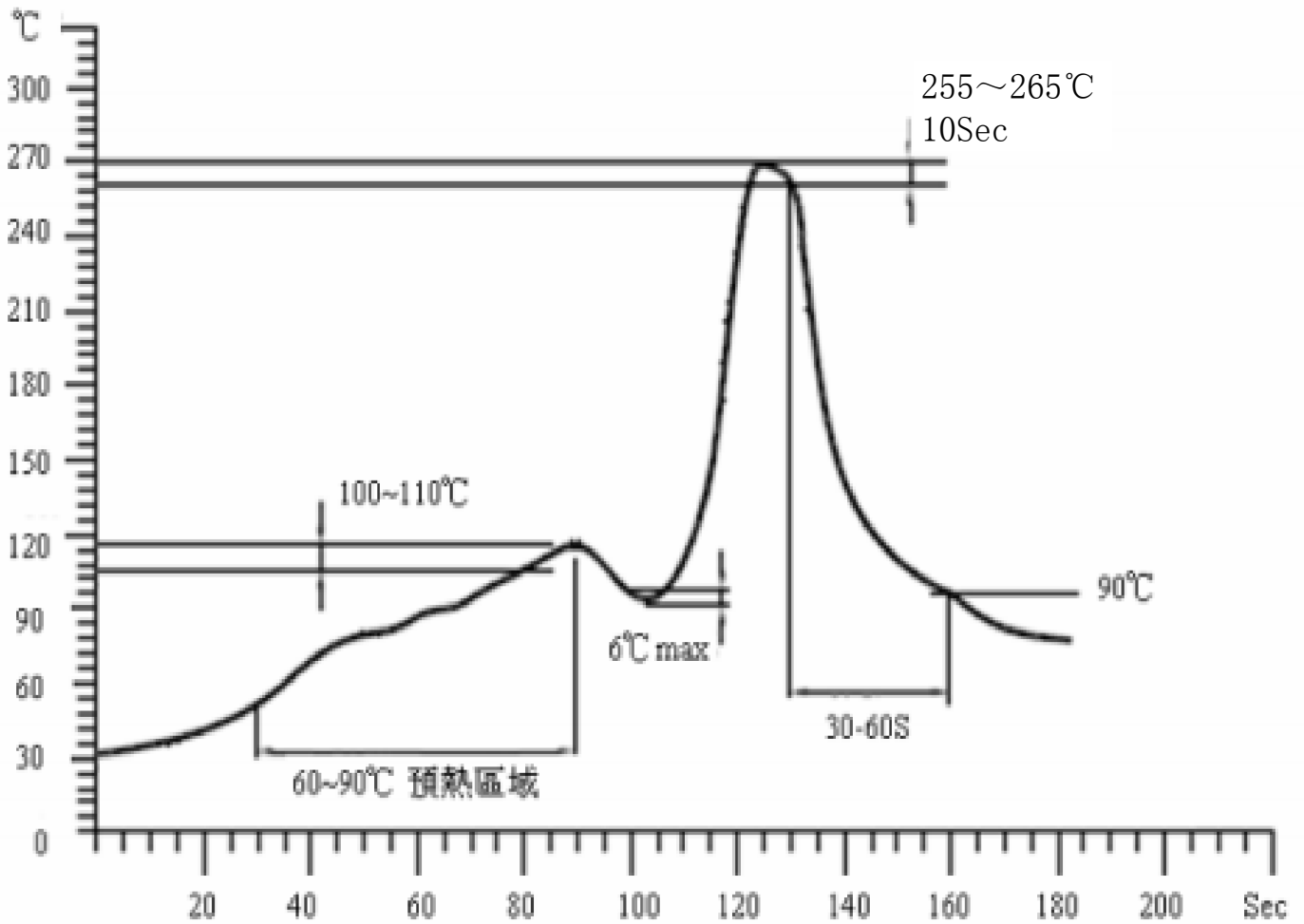


Material: Paper  
 Size: 550x260x190 mm  
 Total Component: 952PCS/BOX



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## 6. Recommend Wave Soldering Curve:



1. Available for all the through hole parts
2. Soldering Method: Wave Soldering
3. Solder: Sn-0.7Cu
4. The recommended wave soldering curve is as below:

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<b>PPT</b>	Hubei Magnetic Electron Technology Co.,Ltd		REV.:G
			PAGE: 6 OF 17

TEST ITEM	OCL(uH) 100KHz,0.1V ,with 24mA DC 350uH Min.															
Conditions	96-95	94-93	90-89	88-87	84-83	82-81	78-77	76-75	72-71	70-69	66-65	64-63	60-59	58-57	54-53	52-51
1	766	764	769	751	740	726	720	742	733	741	686	732	681	727	684	748
2	735	705	733	731	695	665	711	692	709	669	698	680	732	735	723	702
3	732	752	746	665	725	721	754	705	691	742	747	705	725	693	754	742
4	706	744	687	735	677	673	684	681	696	704	679	735	688	692	682	698
5	730	692	694	732	716	711	692	703	705	723	709	724	730	709	732	688
AVERAGE	734	731	726	723	711	699	712	705	707	716	704	715	711	711	715	716
CPK	6	4	4	4	5	4	4	5	7	4	4	5	5	6	4	4
STD	22	31	35	33	25	28	28	23	16	30	27	23	25	19	31	27
MIN	706	692	687	665	677	665	684	681	691	669	679	680	681	692	682	688
MAX	766	764	769	751	740	726	754	742	733	742	747	735	732	735	754	748

PREPARED BY:

CHECKED BY:

APPROVED BY:



TEST ITEM	Turn Ratio : 1CT:1CT±5% @100KHz,100mV																
	Conditions	TX1	RX1	TX2	RX2	TX3	RX3	TX4	RX4	TX5	RX5	RX6	TX6	TX7	RX7	RX8	TX8
1	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
2	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
3	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
4	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
5	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
AVERAGE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CPK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MIN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MAX	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MAX-MIN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PREPARED BY:						CHECKED BY:						APPROVED BY:					

# PTG-9682 TEST DATA 10 of 17

TEST ITEM	LK (uH) 100KHz,0.1V 0.5uH Max															
Conditions	1-2	3-4	5-6	7-8	10-11	12-13	14-15	16-17	19-20	21-22	23-24	25-26	28-29	30-31	32-33	34-35
1	0.25	0.16	0.26	0.18	0.21	0.17	0.24	0.19	0.23	0.19	0.22	0.20	0.19	0.21	0.20	0.18
2	0.22	0.21	0.23	0.21	0.22	0.21	0.23	0.16	0.21	0.25	0.23	0.22	0.22	0.22	0.21	0.20
3	0.23	0.20	0.25	0.23	0.22	0.18	0.23	0.18	0.19	0.16	0.20	0.20	0.21	0.20	0.20	0.22
4	0.20	0.20	0.22	0.21	0.24	0.22	0.20	0.20	0.19	0.22	0.20	0.19	0.19	0.22	0.18	0.23
5	0.19	0.22	0.21	0.20	0.23	0.17	0.20	0.19	0.20	0.18	0.19	0.20	0.23	0.20	0.20	0.19
<b>AVERAGE</b>	0.22	0.20	0.23	0.21	0.22	0.19	0.22	0.18	0.20	0.20	0.21	0.20	0.21	0.21	0.20	0.20
<b>CPK</b>	3.94	4.41	4.28	5.39	8.07	4.41	4.99	6.95	5.90	2.83	5.92	9.07	5.44	9.67	9.19	4.76
<b>STD</b>	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.04	0.02	0.01	0.02	0.01	0.01	0.02
<b>MIN</b>	0.19	0.16	0.21	0.18	0.21	0.17	0.20	0.16	0.19	0.16	0.19	0.19	0.19	0.20	0.18	0.18
<b>MAX</b>	0.25	0.22	0.26	0.23	0.24	0.22	0.24	0.20	0.23	0.25	0.23	0.22	0.23	0.22	0.21	0.23
<b>PREPARED BY:</b>					<b>CHECKED BY:</b>					<b>APPROVED BY:</b>						

# PTG-9682 TEST DATA 11 of 17

TEST ITEM	DCR ( $\Omega$ ) PRI 0.65 $\Omega$ Max															
Conditions	96-95	94-93	90-89	88-87	84-83	82-81	78-77	76-75	72-71	70-69	66-65	64-63	60-59	58-57	54-53	52-51
1	0.37	0.34	0.37	0.3	0.34	0.29	0.4	0.3	0.34	0.31	0.31	0.28	0.34	0.33	0.31	0.27
2	0.33	0.35	0.3	0.31	0.31	0.34	0.33	0.31	0.31	0.36	0.32	0.33	0.36	0.37	0.35	0.29
3	0.35	0.36	0.33	0.38	0.34	0.33	0.32	0.31	0.37	0.34	0.32	0.31	0.4	0.34	0.32	0.3
4	0.4	0.41	0.33	0.36	0.4	0.33	0.3	0.33	0.34	0.35	0.37	0.31	0.35	0.33	0.33	0.36
5	0.3	0.33	0.28	0.26	0.34	0.31	0.33	0.38	0.35	0.33	0.29	0.34	0.34	0.31	0.27	0.28
<b>AVERAGE</b>	0.35	0.36	0.32	0.32	0.35	0.32	0.34	0.33	0.34	0.34	0.32	0.31	0.36	0.34	0.32	0.30
<b>CPK</b>	2.63	3.13	3.20	2.27	3.08	5.50	2.77	3.37	4.74	5.41	3.71	4.86	3.91	4.78	3.75	3.30
<b>STD</b>	0.04	0.03	0.03	0.05	0.03	0.02	0.04	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.04
<b>MIN</b>	0.30	0.33	0.28	0.26	0.31	0.29	0.30	0.30	0.31	0.31	0.29	0.28	0.34	0.31	0.27	0.27
<b>MAX</b>	0.40	0.41	0.37	0.38	0.40	0.34	0.40	0.38	0.37	0.36	0.37	0.34	0.40	0.37	0.35	0.36
<b>PREPARED BY:</b>					<b>CHECKED BY:</b>					<b>APPROVED BY:</b>						

# PTG-9682 TEST DATA 12 of 17

TEST ITEM	50 pF Max. @100KHz, 100mV															
Conditions	1-92	2-91	7-86	8-85	12-80	14-79	19-74	20-73	25-68	26-67	31-62	32-61	37-56	38-55	43-50	44-49
1	34	35	34	38	35	36	36	34	34	36	38	36	36	38	36	36
2	35	35	34	34	34	35	34	35	36	34	34	34	34	36	35	34
3	34	34	35	36	36	34	36	36	35	37	36	37	35	35	34	38
4	36	35	32	34	34	38	35	37	34	35	34	36	36	35	35	32
5	34	36	36	35	34	38	34	36	36	35	38	38	36	34	36	38
<b>AVERAGE</b>	34.60	35.00	34.20	35.40	34.60	36.20	35.00	35.60	35.00	35.40	36.00	36.20	35.40	35.60	35.20	35.60
<b>CPK</b>	5.74	7.07	3.55	2.91	5.74	2.57	5.00	4.21	5.00	4.27	2.33	3.10	5.44	3.17	5.90	1.84
<b>STD</b>	0.89	0.71	1.48	1.67	0.89	1.79	1.00	1.14	1.00	1.14	2.00	1.48	0.89	1.52	0.84	2.61
<b>MIN</b>	34.00	34.00	32.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	32.00
<b>MAX</b>	36.00	36.00	36.00	38.00	36.00	38.00	36.00	37.00	36.00	37.00	38.00	38.00	36.00	38.00	36.00	38.00
<b>PREPARED BY:</b>					<b>CHECKED BY:</b>					<b>APPROVED BY:</b>						

TEST ITEM	IL(dB)															
	TX1	RX1	TX2	RX2	TX3	RX3	TX4	RX4	TX5	RX5	RX6	TX6	TX7	RX7	RX8	TX8
Conditions	-1.0dB Max															
SPEC	1-100MHz															
1	-0.59	-0.69	-0.63	-0.68	-0.58	-0.69	-0.63	-0.72	-0.64	-0.69	-0.63	-0.71	-0.64	-0.69	-0.63	-0.62
2	-0.61	-0.64	-0.63	-0.64	-0.64	-0.66	-0.67	-0.61	-0.61	-0.64	-0.71	-0.64	-0.71	-0.62	-0.67	-0.61
3	-0.45	-0.49	-0.61	-0.62	-0.62	-0.68	-0.70	-0.62	-0.65	-0.59	-0.61	-0.62	-0.68	-0.65	-0.70	-0.64
4	-0.65	-0.56	-0.67	-0.62	-0.66	-0.65	-0.58	-0.67	-0.63	-0.62	-0.67	-0.62	-0.66	-0.68	-0.63	-0.67
5	-0.60	-0.54	-0.63	-0.68	-0.66	-0.72	-0.66	-0.66	-0.68	-0.69	-0.67	-0.72	-0.63	-0.64	-0.59	-0.59
AVERAGE	-0.58	-0.58	-0.63	-0.65	-0.63	-0.68	-0.65	-0.66	-0.64	-0.65	-0.66	-0.66	-0.66	-0.66	-0.64	-0.63
CPK	1.84	1.73	5.57	3.87	3.67	3.89	2.58	2.61	4.61	2.69	2.92	2.29	3.49	3.98	2.81	4.09
MIN	-0.65	-0.69	-0.67	-0.68	-0.66	-0.72	-0.70	-0.72	-0.68	-0.69	-0.71	-0.72	-0.71	-0.69	-0.70	-0.67
MAX	-0.45	-0.49	-0.61	-0.62	-0.58	-0.65	-0.58	-0.61	-0.61	-0.59	-0.61	-0.62	-0.63	-0.62	-0.59	-0.59
PREPARED BY:					CHECKED BY:					APPROVED BY:						

TEST ITEM	RL(dB)															
	TX1	RX1	TX2	RX2	TX3	RX3	TX4	RX4	TX5	RX5	RX6	TX6	TX7	RX7	RX8	TX8
Conditions	-10.0dB Max															
SPEC	100MHz															
1	-16.0	-15.7	-14.5	-14.9	-14.8	-15.1	-15.8	-15.7	-14.99	-16.59	-15.62	-17.95	-18.30	-17.12	-16.30	-17.60
2	-16.9	-15.9	-14.6	-14.8	-14.9	-15.8	-15.3	-16.4	-15.30	-15.93	-15.36	-16.58	-17.20	-16.20	-16.58	-16.80
3	-16.7	-15.0	-14.9	-13.9	-14.7	-15.3	-14.6	-15.3	-14.77	-16.89	-15.71	-17.47	-16.80	-16.30	-16.50	-17.30
4	-16.3	-15.8	-14.6	-15.1	-15.2	-15.0	-14.9	-16.8	-14.79	-15.71	-15.12	-17.10	-16.70	-17.20	-17.20	-16.80
5	-15.7	-16.4	-14.2	-14.7	-15.8	-14.4	-15.4	-16.4	-15.23	-16.45	-15.38	-16.67	-17.30	-16.70	-16.30	-17.90
AVERAGE	-15.8	-15.5	-14.3	-14.2	-14.8	-14.8	-14.9	-15.6	-14.7	-16.0	-15.1	-16.7	-17.0	-16.4	-16.3	-16.8
CPK	3.9	3.6	5.7	3.0	3.6	3.2	3.5	3.1	6.4	4.1	7.3	3.9	3.7	4.7	5.7	4.6
MIN	-16.9	-16.4	-14.9	-15.1	-15.8	-15.8	-15.8	-16.8	-15.3	-16.9	-15.7	-18.0	-18.3	-17.2	-17.2	-17.9
MAX	-15.7	-15.0	-14.2	-13.9	-14.7	-14.4	-14.6	-15.3	-14.8	-15.7	-15.1	-16.6	-16.7	-16.2	-16.3	-16.8

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TEST ITEM	CTK							
Conditions	TX1-RX1	RX2-TX2	TX3-RX3	RX4-TX4	TX5-RX5	RX6-TX6	TX7-RX7	RX8-TX8
	-33 dB Min	-33 dB Min	-33 dB Min	-33 dB Min	-33 dB Min	-33 dB Min	-33 dB Min	-33 dB Min
SPEC	100M	100M	100M	100M	100M	100M	100M	100M
1	-41.6	-40.7	-41.2	-41.6	-40.4	-40.5	-40.7	-41.4
2	-40.8	-41.7	-41.7	-40.8	-41.6	-41.5	-40.1	-42.3
3	-41.5	-41.8	-41.5	-40.2	-41.6	-40.9	-41.4	-42.6
4	-40.8	-41.0	-42.0	-40.8	-41.0	-40.1	-40.4	-42.1
5	-41.7	-40.9	-41.1	-40.7	-41.2	-41.1	-41.1	-41.4
AVERAGE	-41.3	-41.2	-41.5	-40.8	-41.2	-40.8	-40.7	-42.0
CPK	6.1	5.5	7.8	5.2	5.4	4.6	4.9	5.6
MIN	-41.7	-41.8	-42.0	-41.6	-41.6	-41.5	-41.4	-42.6
MAX	-40.8	-40.7	-41.1	-40.2	-40.4	-40.1	-40.1	-41.4
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# PTG-9682 TEST DATA 16 of 17

TEST ITEM	CMRR															
Conditions	TX1	RX1	TX2	RX2	TX3	RX3	TX4	RX4	TX5	RX5	RX6	TX6	TX7	RX7	RX8	TX8
	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min
SPEC	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
1	-47.8	-46.1	-45.6	-47.3	-45.5	-46.8	-46.9	-46.7	-47.8	-46.1	-45.6	-47.3	-45.5	-46.8	-46.9	-46.7
2	-50.0	-45.5	-45.3	-49.2	-46.7	-45.2	-45.9	-45.1	-50.0	-45.5	-45.3	-49.2	-46.7	-45.2	-45.9	-45.1
3	-49.0	-45.3	-46.0	-50.9	-45.3	-45.6	-45.7	-45.0	-49.0	-45.3	-46.0	-50.9	-45.3	-45.6	-45.7	-45.0
4	-47.0	-44.7	-44.5	-49.6	-45.9	-46.7	-47.5	-46.1	-47.0	-44.7	-44.5	-49.6	-45.9	-46.7	-47.5	-46.1
5	-48.0	-44.6	-44.4	-48.5	-44.7	-47.6	-47.4	-45.4	-48.0	-44.6	-44.4	-48.5	-44.7	-47.6	-47.4	-45.4
AVERAGE	-48.4	-45.2	-45.2	-49.1	-45.6	-46.4	-46.7	-45.7	-48.4	-45.2	-45.2	-49.1	-45.6	-46.4	-46.7	-45.7
CPK	5.27	8.26	7.55	4.75	6.94	5.67	6.55	7.28	5.27	8.26	7.55	4.75	6.94	5.67	6.55	7.28
MIN	-50.0	-46.1	-46.0	-50.9	-46.7	-47.6	-47.5	-46.7	-50.0	-46.1	-46.0	-50.9	-46.7	-47.6	-47.5	-46.7
MAX	-47.0	-44.6	-44.4	-47.3	-44.7	-45.2	-45.7	-45.0	-47.0	-44.6	-44.4	-47.3	-44.7	-45.2	-45.7	-45.0

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# PTG-9682 TEST DATA 17 of 17

TEST ITEM	DCMR															
Condition S	TX1	RX1	TX2	RX2	TX3	RX3	TX4	RX4	TX5	RX5	RX6	TX6	TX7	RX7	RX8	TX8
	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min	-30 dB Min
SPEC	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
1	-46.1	-47.2	-44.1	-46.1	-44.0	-45.3	-48.4	-45.2	-45.8	-44.6	-44.1	-45.8	-44.0	-45.3	-45.4	-45.2
2	-48.5	-44.0	-44.8	-47.7	-45.2	-43.7	-44.4	-43.6	-48.5	-44.0	-43.8	-47.7	-45.2	-43.7	-44.4	-43.6
3	-44.5	-43.8	-44.5	-49.4	-43.8	-44.1	-44.2	-43.5	-47.5	-43.8	-44.5	-49.4	-43.8	-44.1	-44.2	-43.5
4	-45.5	-43.2	-43.0	-48.1	-43.4	-45.2	-44.0	-44.6	-45.5	-43.2	-43.0	-48.1	-44.4	-45.2	-46.0	-44.6
5	-46.5	-43.1	-42.9	-47.0	-43.2	-46.1	-45.9	-43.9	-46.5	-43.1	-42.9	-47.0	-43.2	-46.1	-45.9	-43.9
AVERAGE	-46.2	-44.3	-43.9	-47.7	-43.9	-44.9	-45.4	-44.2	-46.8	-43.7	-43.7	-47.6	-44.1	-44.9	-45.2	-44.2
CPK	3.65	2.82	5.46	4.83	5.86	5.15	2.75	6.58	4.47	7.45	6.80	4.37	6.27	5.15	5.96	6.58
MIN	-48.5	-47.2	-44.8	-49.4	-45.2	-46.1	-48.4	-45.2	-48.5	-44.6	-44.5	-49.4	-45.2	-46.1	-46.0	-45.2
MAX	-44.5	-43.1	-42.9	-46.1	-43.2	-43.7	-44.0	-43.5	-45.5	-43.1	-42.9	-45.8	-43.2	-43.7	-44.2	-43.5

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