

RoHS Compliant

APPROVAL SHEET

Issued No. : SLOT141123

DESCRIPTION : SMD 7050 XO LVPECL TEWELL 156.253906

NOMINAL FREQ. : 156.253906 MHz

TAITIEN P/N :

TAITIEN MODEL : OTEWELLANF-156.253906MHz

REVISION : 1

DATE : 11/25/2014

QA	Checked	Prepared
<i>Ye Wang</i>	<i>C.H. Chien</i>	<i>Rong Lin</i>

CUSTOMER :

CUSTOMER P/N :

Customer Signature
Approved:
Date:

REVISION HISTORY

Rev.	Revised Page	Revision Content	Date	Ref. No.	Reviser
01	N/A	Initial Released	04/12/2013	N/A	Ray Liu

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CONTENT

SPECIFICATIONS	PAGE
ELECTRICAL SPECIFICATIONS	4-5
TEST CIRCUIT	6
OUTPUT WAVEFORM	6
RECOMMENDED IR REFLOW PROFILE	7
PRODUCT DIMENSIONS	8
PRODUCT IDENTIFICATION	8
PACKAGE INFORMATION	9

ATTACHMENT

TESTING DATA	PAGE
ELECTRICAL CHARACTERISTICS TEST	10
TEMPERATURE CHARACTERISTICS TEST	11
PHASE NOISE TEST	12
OTHER DATA	
TEST DATA OF RELIABILITY	13-22
SUBSTANCE ANALYSIS LIST OF RAW MATERIAL	23

⌘ ELECTRICAL CHARACTERISTICS

⌘ FREQUENCY

	Parameter	Min.	Typ.	Max.	Units	Test Condition
1-1	Nominal Frequency		156.253906		MHz	
1-2	Frequency stability (Overall)	-25		+25	ppm	Frequency stability includes frequency tolerance@25°C and frequency stability vs. operating temperature range and voltage variance and first year aging.
1-3	Aging	-3.0		+3.0	ppm	Frequency drift in first year
1-4	Operating Temperature range	-40		+85	°C	The operating temperature range over which the frequency stability is measured.
1-5	Storage Temperature range	-55		+125	°C	

⌘ POWER SUPPLY

	Parameter	Min.	Typ.	Max.	Units	Test Condition
2-1	Supply voltage	3.135	3.3	3.465	V	
2-2	Current			75	mA	At maximum supply voltage

⌘ OUTPUT

	Parameter	Min.	Typ.	Max.	Units	Test Condition
3-1	Output waveform		LVPECL			
3-2	Duty Cycle	45	50	55	%	
3-3	Start Time			3.0	mSec	
3-4	Transition Time : Rise/Fall Time			1.0	nSec	
3-5	Output Level	Output High(Logic "1")	2.275		V	
3-6	Level	Output Low(Logic "0")		1.68	V	
3-7	Output Load		50Ω-2V			
3-8	Tri-State	Output Active	2.31 or Floating		V	Pin 1 Tri-state Enable High
3-9	Tri-State	Output in High-Impedance state		0.99	V	

⌘ JITTER

	Parameter	Min.	Typ.	Max.	Units	Test Condition
4-1	RMS Phase Jitter			0.2	pSec	(12KHz - 20MHz)

☿ PHASE NOISE

	Parameter	Min.	Typ.	Max.	Units	Test Condition
5-1	100Hz offset			-90	dBc/Hz	
5-2	1KHz offset			-115	dBc/Hz	
5-3	10KHz offset			-140	dBc/Hz	
5-4	100KHz offset			-145	dBc/Hz	

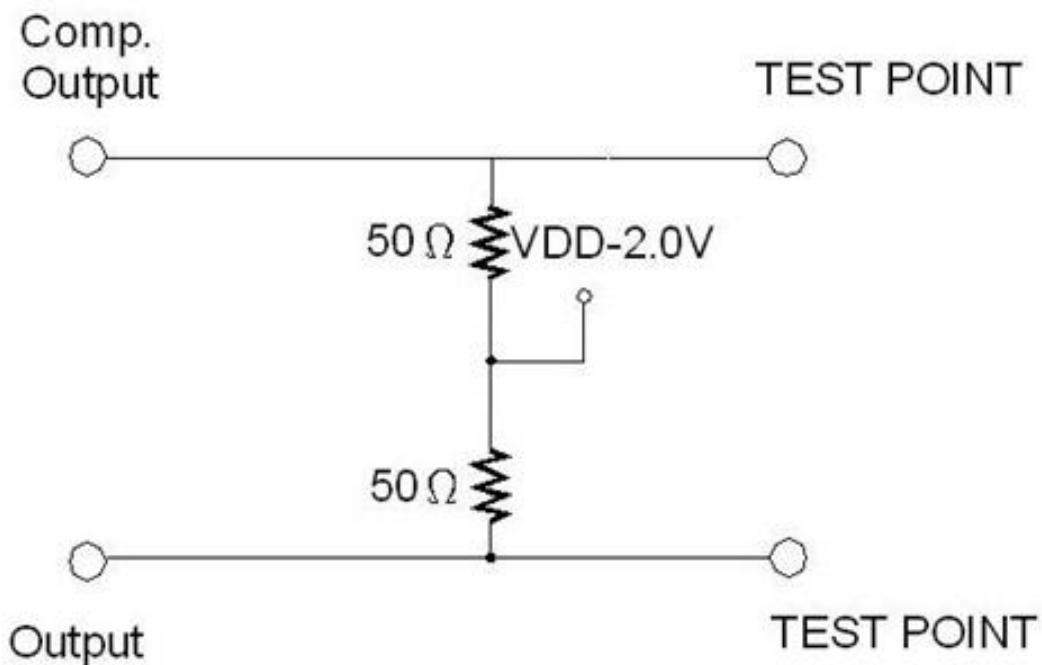
☿ CUSTOMER SPECIAL REQUIREMENT

6-1 3.3V , RMS Jitter<200fSec

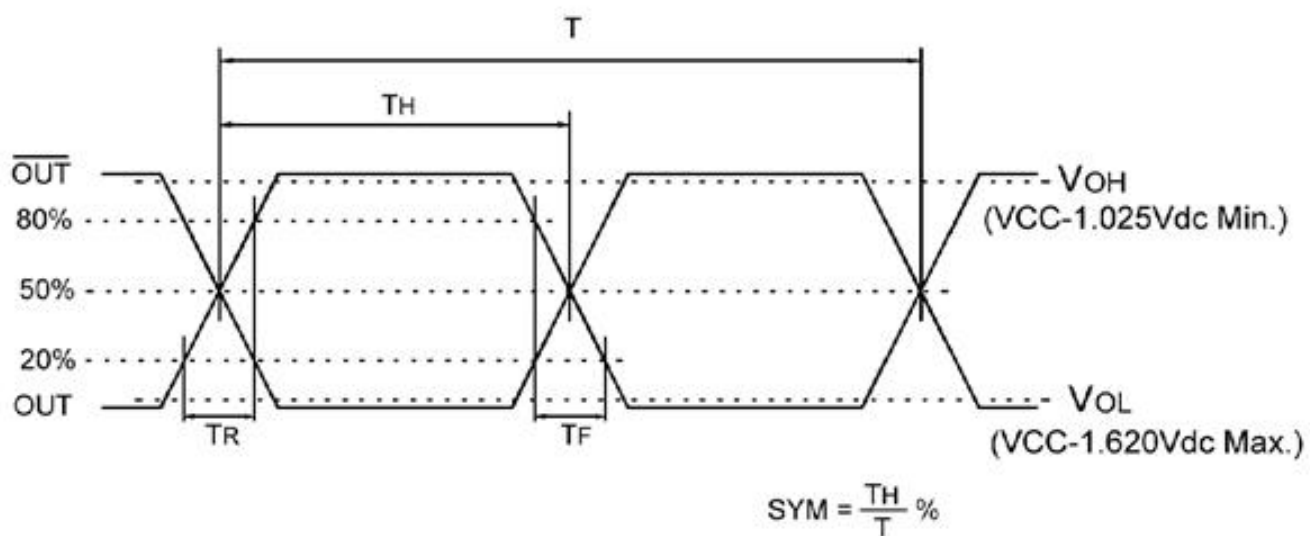
☿ ENVIRONMENTAL

	Parameter	Reference Std.	Test Condition
7-1	Vibration Test	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1	10~2000Hz, 1.52mm, 20g, each axis for 4 hrs
7-2	Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B	-55°C, 125°C; soak time is 10 mins, with total 200 cycles
7-3	Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B	1500g, half-sine, 0.5ms, each axis for 3 times.

TEST CIRCUIT (LVPECL LOAD)

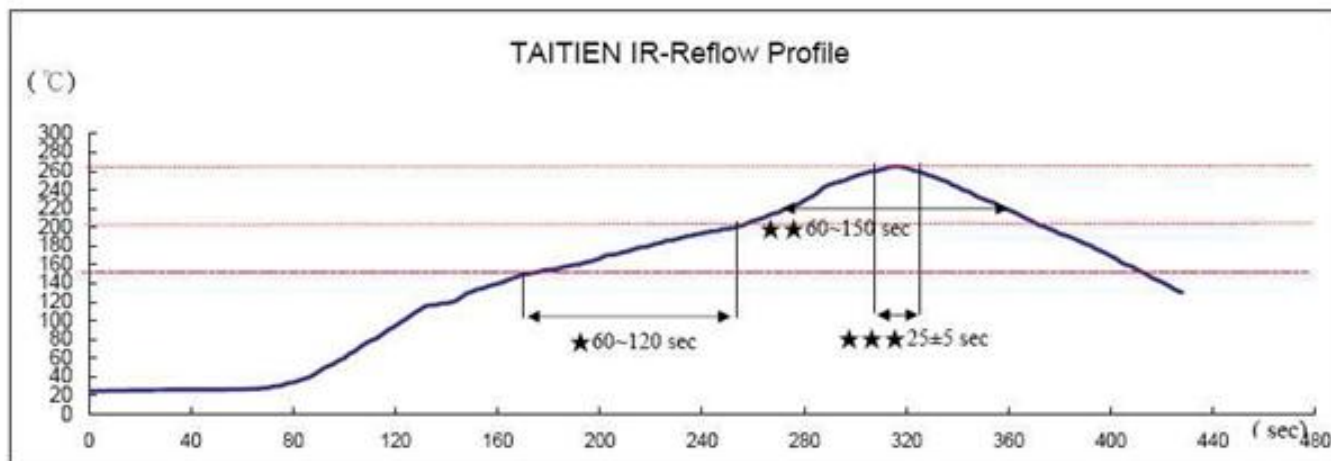


OUTPUT WAVEFORM (LVPECL LOAD)



⌘ RECOMMENDED IR REFLOW PROFILE

⌘ IR REFLOW PROFILE OF CERAMIC SMD PRODUCTS FOR Pb FREE PROCESS



Reference Standard: JEDEC-STD 020

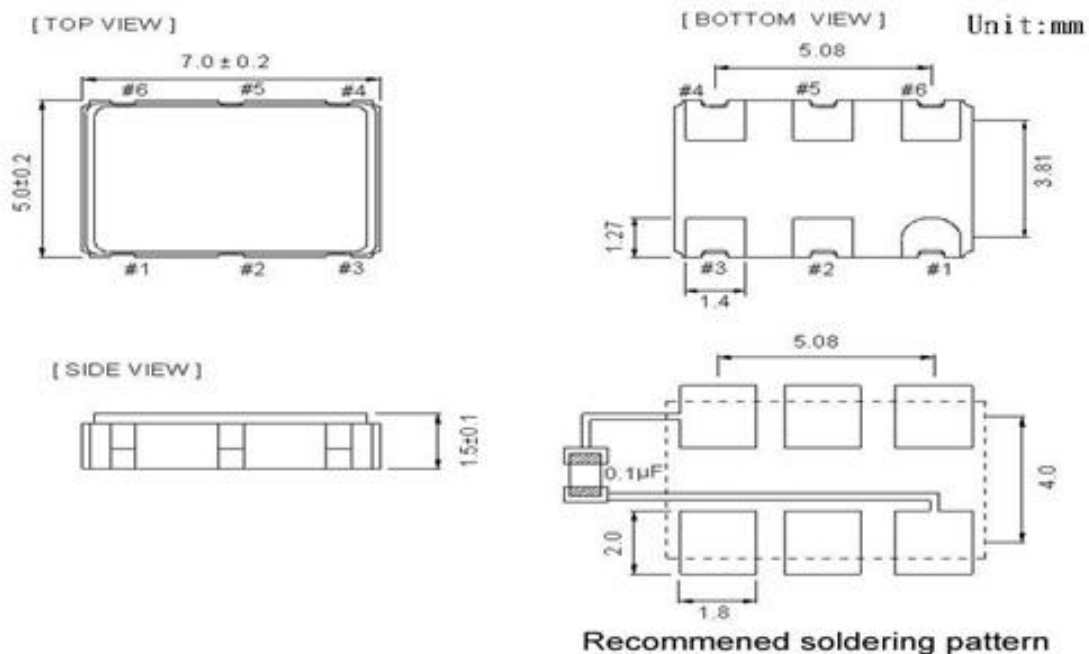
Test conditions: ★ Pre-heating : 150°C to 200°C, 60~120secs.

★★ Heating : 217°C, 60~150sec.

★★★ Peak temperature : 260±5°C, 25±5sec.

PRODUCT DIMENSIONS

DIMENSIONS

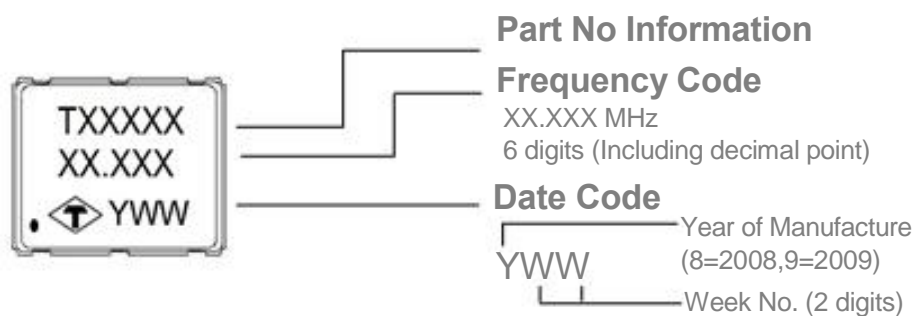


PIN FUNCTIONS

Pin	Function
#1	Tri-State
#2	N.C.
#3	GND.
#4	Output
#5	Comp. Output
#6	V _{DD}

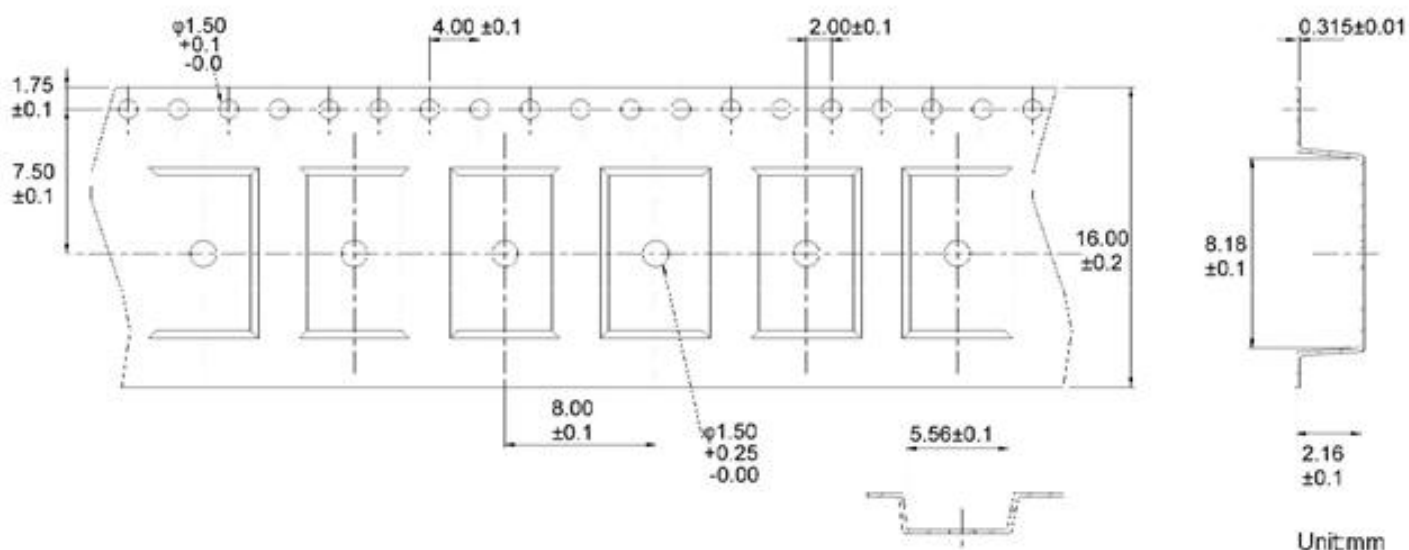
PRODUCT IDENTIFICATION (MARKING)

PROCEDURE : LASER



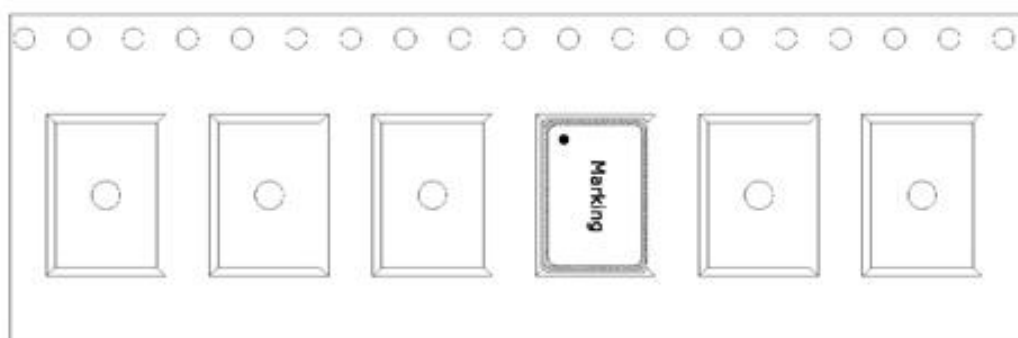
PACKAGE INFORMATION

TAPE (CARRIER) DIMENSIONS

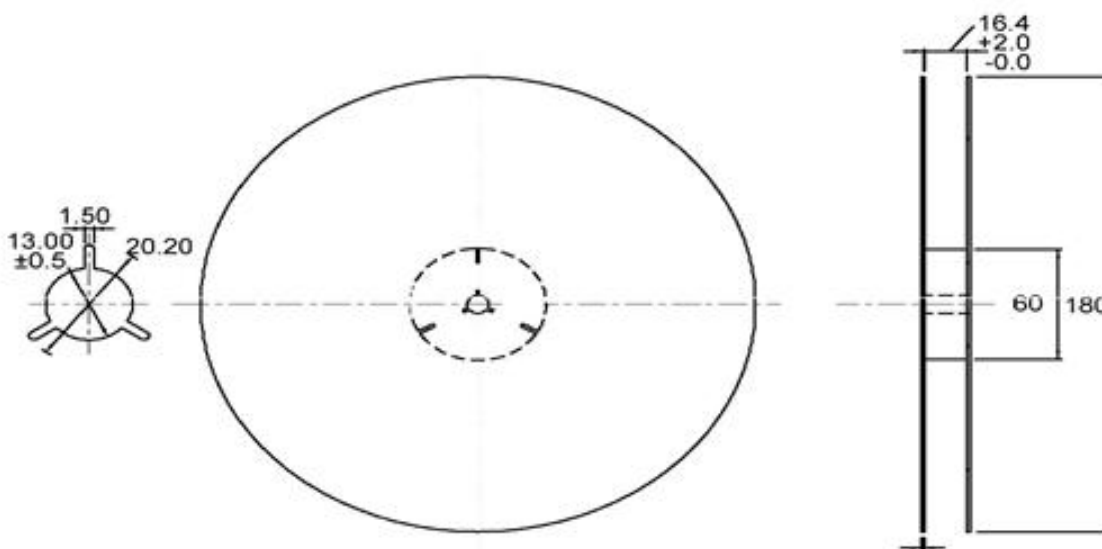


Unit:mm

THE DIRECTION OF PACKING



REEL DIMENSIONS



Unit:mm

ATTACHMENT

ELECTRICAL CHARACTERISTICS TEST

TAITIEN ELECTRONICS CO., LTD. Products Test Data

Test Data: 11/24/2014 SPEC NO: 06230L1133 Order NO: TW1-141100200-001
 Frequency (MHz): 156.253906 Product Model: OTEWELLANF

NO	Frequency (MHz)	Idd (ppm)	Tri-Stat (mA)	Rise (nSec)	Fall (nSec)	Duty (%)	Start_T (mSec)			
Max.		25	75	1	1	55	3			
Min.		-17				45				
1	156.252491	-9.06	26.21	OK	0.15	0.14	50.5	49.5	0.1	OK
2	156.2533	-3.88	26.23	OK	0.15	0.13	50.56	49.44	0.1	OK
3	156.252201	-10.91	26.39	OK	0.16	0.13	49.7	50.3	0.1	OK
4	156.252183	-11.03	25.81	OK	0.15	0.14	49.43	50.57	0.1	OK
5	156.251993	-12.24	25.38	OK	0.15	0.14	50.06	49.94	0.1	OK
6	156.252086	-11.65	25.78	OK	0.16	0.13	49.42	50.58	0.1	OK
7	156.252721	-7.58	26.06	OK	0.15	0.13	50.22	49.78	0.1	OK
8	156.252812	-7	26.18	OK	0.16	0.14	50.18	49.82	0.1	OK
9	156.253038	-5.55	26.27	OK	0.16	0.14	50.41	49.59	0.1	OK
10	156.25335	-3.56	26.32	OK	0.16	0.13	50.09	49.91	0.1	OK
AVG:		-8.25	26.06		0.16	0.14	50.06	49.94	0.10	
STD:		3.06	0.30		0.01	0.00	0.39	0.39	0.00	

CA(%): -58.31
 CP: 2.29 54.76
 CPK: 0.96 54.76

Test Number: 10
 OK_QTY: 10
 NG_QTY: 0

Other Informations:
 Orders NO:TW1-141100200-001

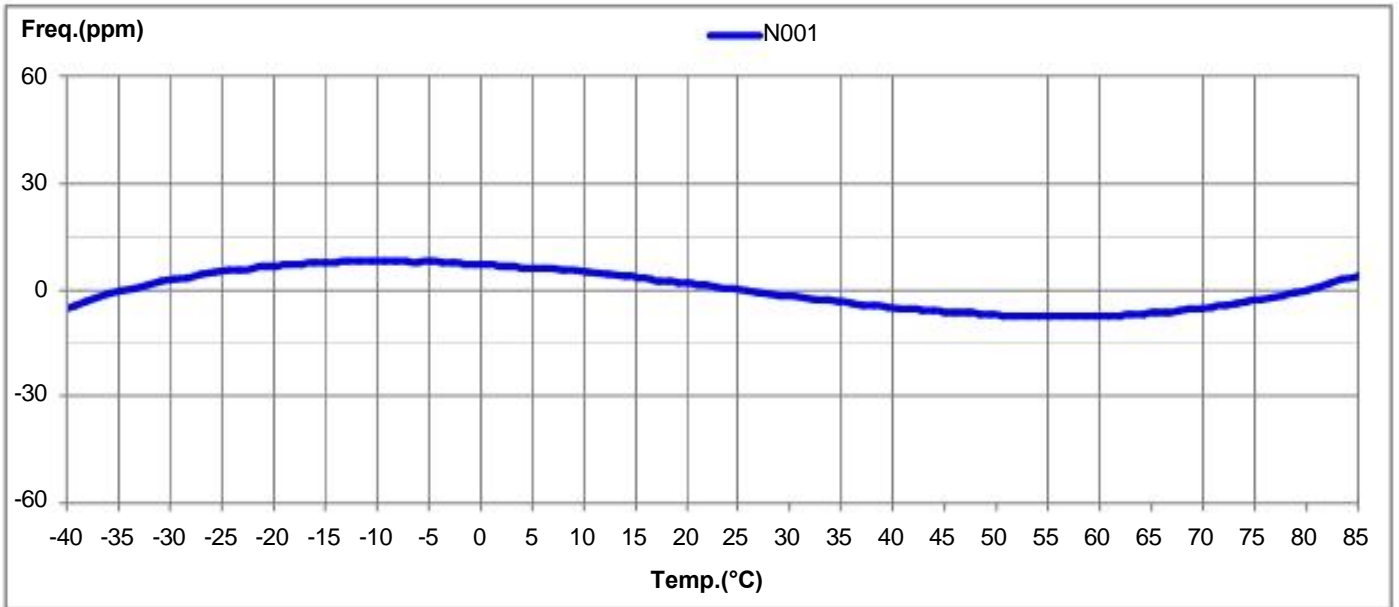
PN NO:TA3-141100109

Supervisor: Ray Lin

Inspector: 蕭育廷

ATTACHMENT

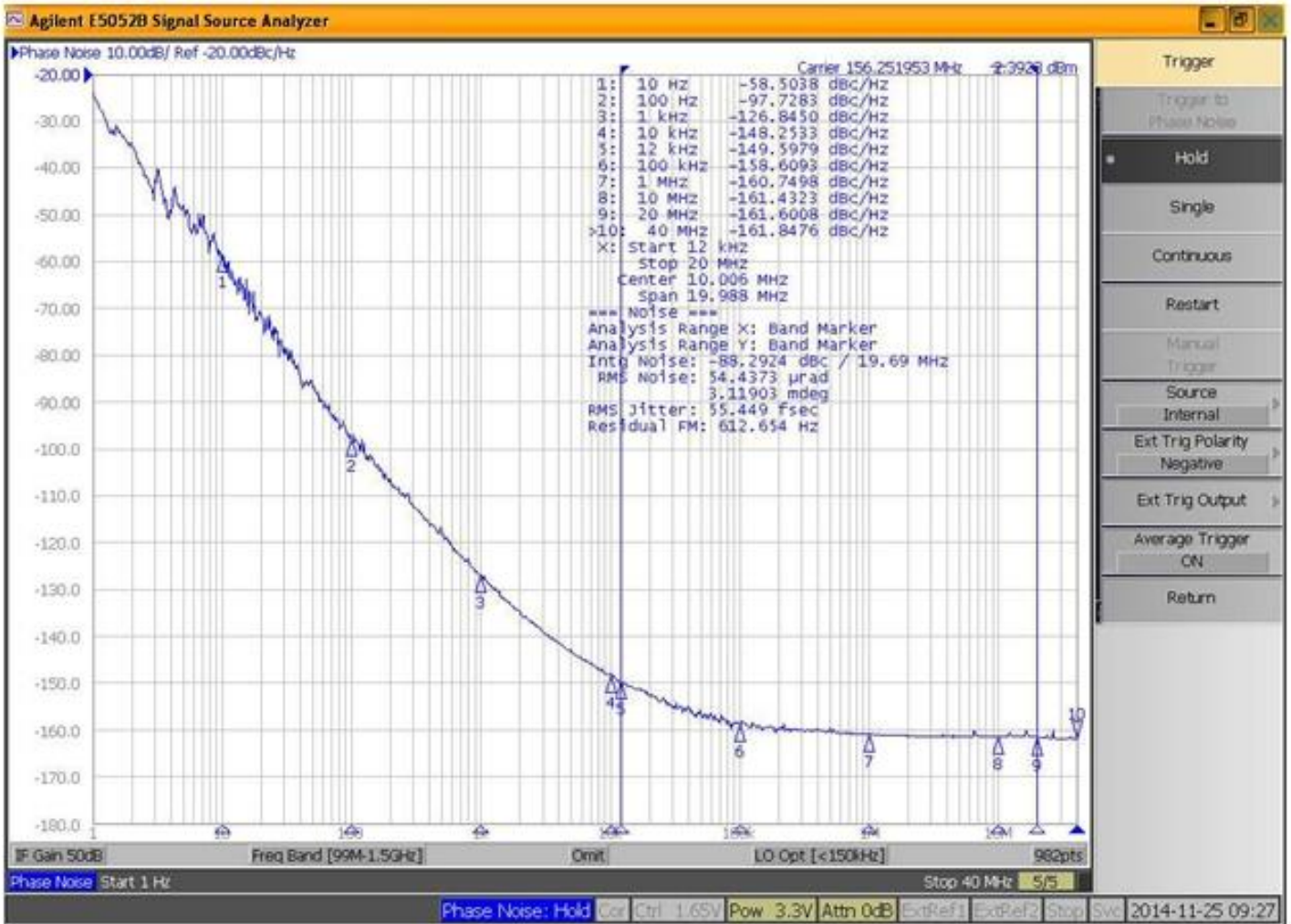
TEMPERATURE CHARACTERISTICS TEST



Supervisor: Roy Lin

Inspector: 劉育廷

ATTACHMENT
PHASE NOISE



Supervisor:

Ray Lin

Inspector:

廖國祥

