

Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard:     **T53-F519-40.00MHz**    

P/N: \_\_\_\_\_

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2014.11.18			

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### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2014.11.13
1.1	“2.Typical Performance Data” added	<i>Amway</i>	2014.11.18



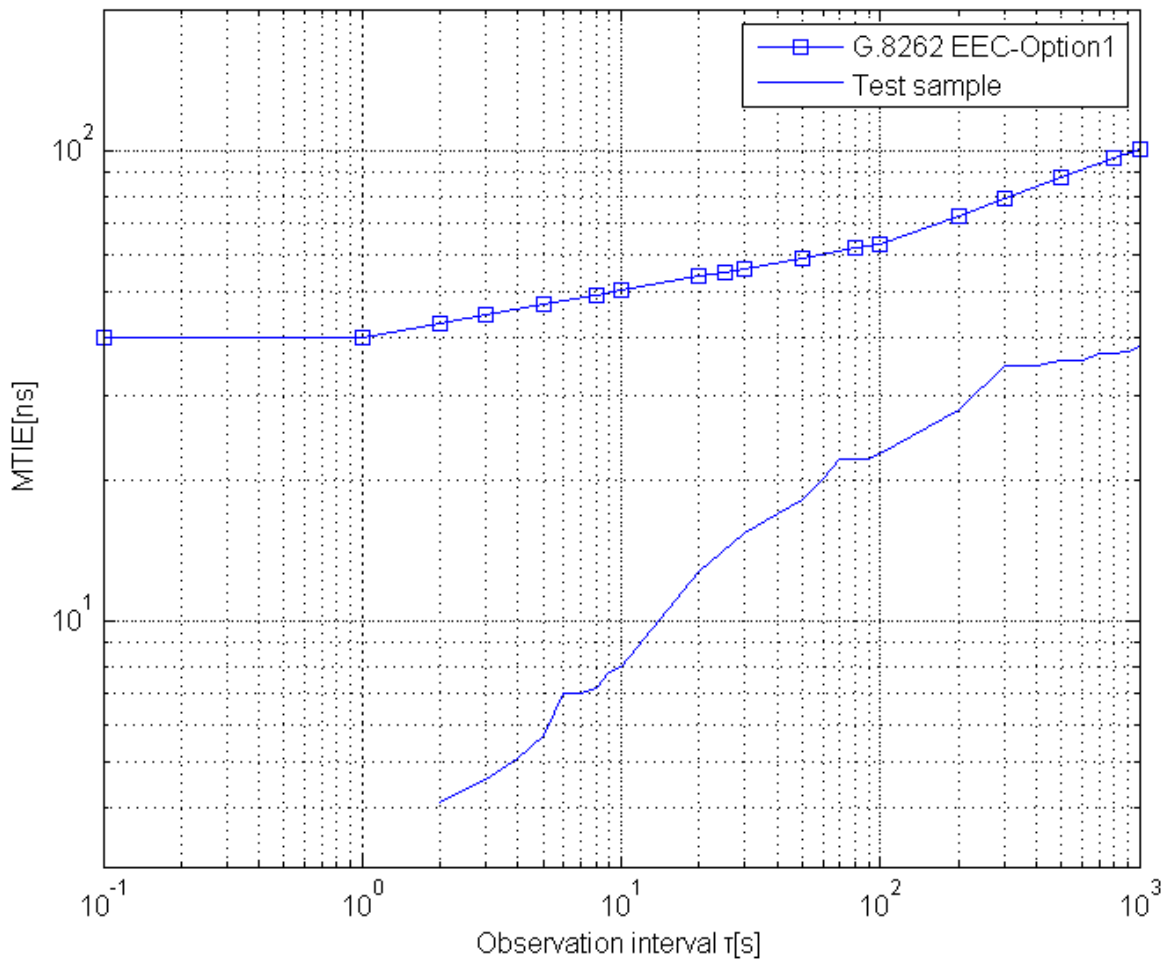
## 1. Electrical Parameters

MODEL: T53-F519-40.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	40.00			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.5		+0.5	$\times 10^{-6}$	T <sub>A</sub> varied from -40°C to 85°C, measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, O <sub>load</sub> =10KΩ//10pF, temperature variable speed less than 2°C per minute.
	Nominal Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> varied from 3.13V to 3.47V and O <sub>Load</sub> =10KΩ//10pF.
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, and O <sub>Load</sub> =10KΩ//10pF .
	Short-Term Stability: Allan Variance		0.5		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 10 mins ref. to 25°C; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
Power Supply	Operating Current			10	mA	@25°C, V <sub>cc</sub> =3.3V, O <sub>Load</sub> =10KΩ//10pF.
	Supply Voltage	3.13	3.3	3.47	V	
Phase Noise	Phase Noise @25°C		-75	-70	dBc/Hz	10Hz
			-105	-100		100Hz
			-130	-125		1KHz
			-140	-135		10KHz
			-145	-140		100KHz
			-145	-140		1MHz

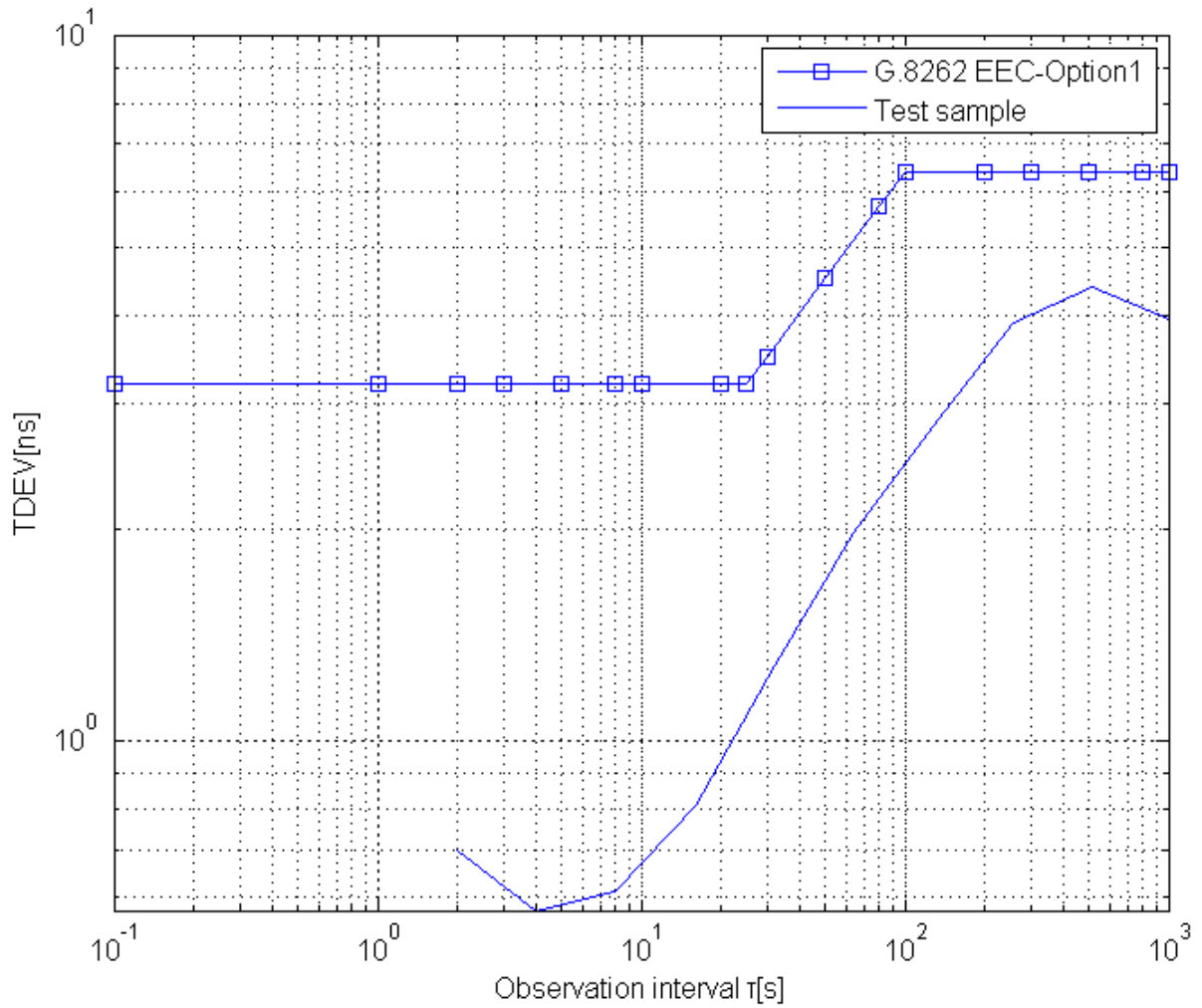


Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Level 2.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z) .IEC 68-2-06 Test Fc.				
Shock	100g; 6ms; half sine wave (3 times for each 3 directions X ,Y , Z),IEC 68-2-27 Test Ea/Severity 50A.					

## 2. Typical Performance Data



**MTIE per G.8262 Option 1**

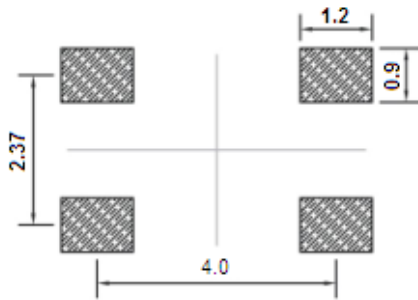


**TDEV per G.8262 Option 1**

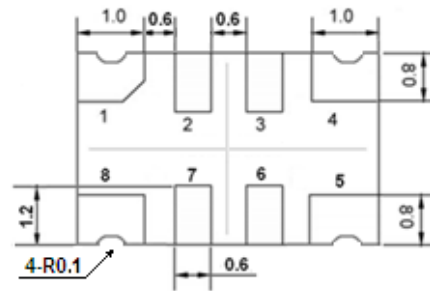
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### 3. Mechanical Structure(mm)



Solder pad layout



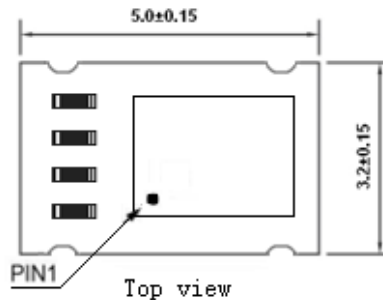
Bottom view



Side view

#### PIN FUNCTION

PIN	NOTATION	FUNCTION
1	NC	Not Connect
2, 3	NC	Not Connect
4	GND	GND
5	OUTPUT	RF Output
6, 7	NC	Not Connect
8	VCC	Supply Voltage



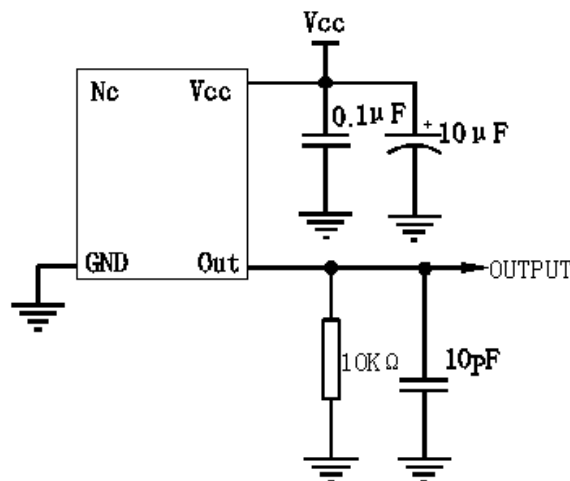
Top view

**Note1:** Tolerance  $\pm 0.1\text{mm}$  without mark

**Note2:** Referential Weight 0.05g

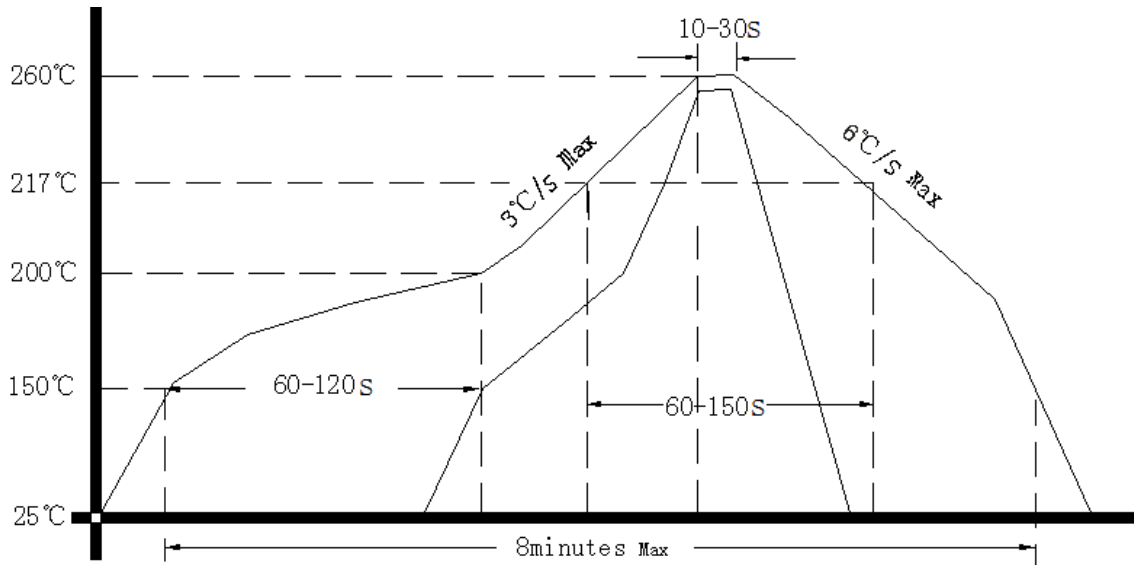
**Note3:** NC is not connect

### 4. Test Circuit





### 5. Reflow Soldering Curve (RoHS)



### 6. Package: Tape & Reel (mm)

