



NIHON DEMPA KOGYO CO., LTD

OCXO STRATUM3E SPECIFICATIONS



Date , 18/03/2010

THIS SPECIFICATION SHEET IS PROVIDED TO:

For specifying specifications of following product:

(NDK Part Number)

HCMOS-OCXO-25-12.8MHZ3E

(Your Part Number)

Prepared By:

Checked By:

CONFIRMED BY:

For future reference, we thank you to confirm the specifications and send one copy back to us.

SPECIFICATION

Title

Page 1 of 4

1 SCOPE

2.ELECTRICAL CHARACTERISTIC

HCMOS OUTPUT OCXO-25						
PARAMETER	SYMBOL	CONDITIONS	MIN	TYPE	MAX	UNIT
Normal Frequency	F_n	SC	-	12.8	-	MHz
Absolute maximum rating						
Maximum Supply Range	V_{cc}	-	-0.3		+6	V
Operating Temperature range	T_A	-	-20	25	70	°C
Storage Temperature range			-40	-	105	°C
Power						
Operating Supply Voltage	V_{cc}			3.3		V
Turn-On Power		$V_{cc} = 3.3V$	-	-	3.6	W
Steady state Power		$T_a = 25^\circ C$ $V_{cc} = 3.3V$	-	-	1.2	W
Frequency Stability						

SPECIFICATION

Title

Page 2 of 4

Frequency tolerance			-100	-	+100	ppb
Freq VS Temperature		-20 to 70°C ref to 0 @ 25 °C	-8	-	+8	ppb
Freq VS Time(Aging)		Per day(After 30 days of operation)	-0.5		0.5	ppb
		first year(After 30 days of operation)	-50		50	ppb
		20 years (After 30 days of operation)	-500		500	ppb
Freq VS Voltage		Vcc =3.3V±0.15V	-1		1	ppb
Freq VS Load		Load=15pF±10%	-0.5		0.5	Ppb
Electronic Frequency Control						
Control Voltage Range	V _c		0.0		3.3	V
Control Voltage at f ₀			-	1.65	-	V
Frequency tuning range		V _c =0V ref to F ₀	-	-	-0.6	ppm
		V _c =3.3V ref to F ₀	0.6	-	-	ppm
Input impedance				100		KΩ
Output parameters						
Output signal	Z _c		HCMOS square wave			
Output load	C _L	Output to ground	Load=15pF±10%			
Amplitude	V _{OH}	Load=15pF±10% Vcc=3.3V	2.8	-	-	V
	V _{OL}	Load=15pF±10% Vcc=3.3V	-	-	0.4	V

SPECIFICATION

Title

Page 3 of 4

Output Duty Cycle	DC		45	-	55	%
Rise & fall Time			-	-	6	nS
Phase noise		100Hz	-	-130	-	dBc/Hz
		1KHz	-	-145	-	dBc/Hz
		10KHz	-	-150	-	dBc/Hz

3.SYMBOL

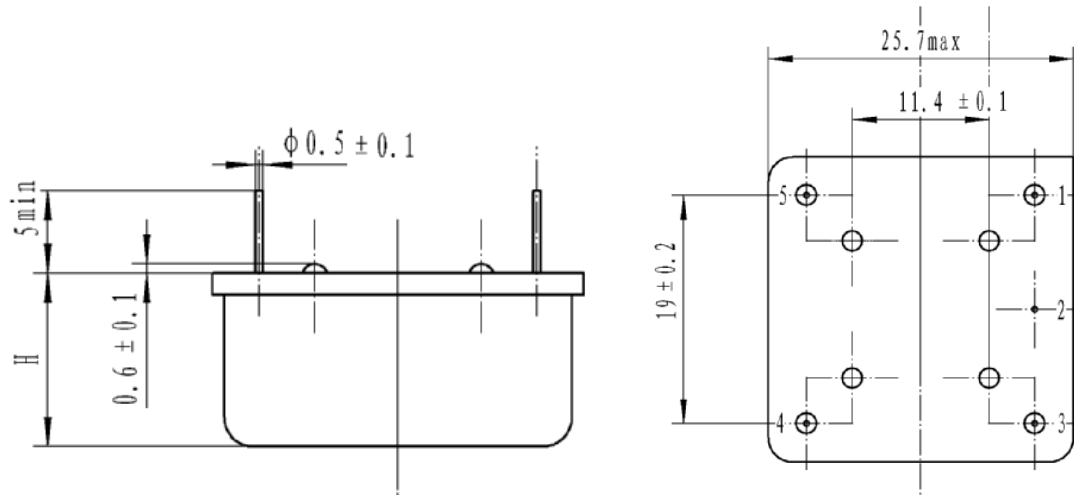
Pin 1 shall be designated with a dot.

4.Mechanical Dimensions

SPECIFICATION

Title

Page 4 of 4



H=13 MAX

Units: mm

PIN FUNCTION

1. RF Output
2. GND
3. Control Voltage
4. NC
5. Power Supply