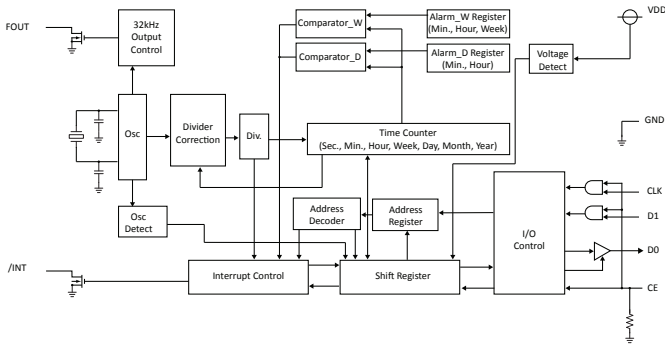


Block Diagram

Overview

High Stability I²C-Bus Interface[®] – 32.768kHz DTCXO

I²C Bus is registered to NXP Semiconductors



- Features built-in 32.768 kHz crystal unit
 - Frequency adjusted for high accuracy ($\pm 5 \times 10^{-6}$ at 25°C)
 - Equivalent to 13 seconds per month deviation

• Various detection functions

- Power supply monitoring function
- Stop detection function
- Power on reset detection function

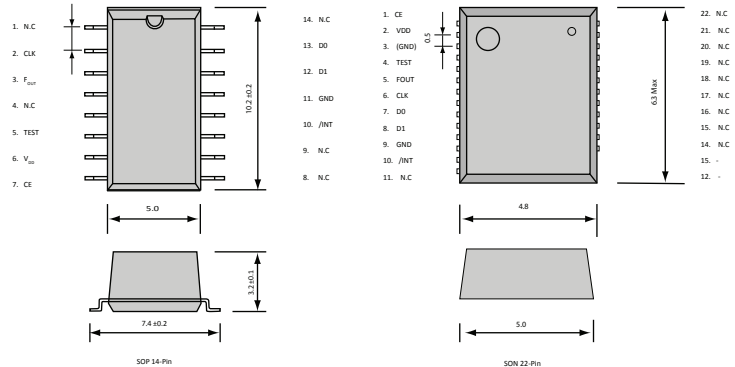
• Equipped with alarm and timer

- Timer function produces a periodic interruption signal.
- As for the Alarm function an optional combination is produced. (Date, Time, Minute)

Pin Function

Terminal Connections

Pin Name	I/O	Function
CE	Input	Chip enabled Input (Built-in Pull down resistor.) At "H" level access possible
CLK	Input	Shift Clock input pin for serial data transfer
D1	Input	Data input pin for serial data transfer
D0	Output	Data Output pin for serial data transfer
FOUT	Output	32.768kHz clock o/p pin with o/p control function (N-ch open drain) High impedance at time of O/P off
/INT	Output	Interrupt O/P (N-ch open drain)
TEST	-	Used by manufacturer for testing (Do not connect)
V _{DD}	-	Positive power supply
GND	-	Connect to ground



JR-8025 SA

JR-8025 NB

Specifications

• Recommended Operating Conditions

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Pwr Voltage	V _{DD}	-	1.7	3.0	5.5	V
Clock Voltage	V _{CLK}	-	1.15	3.0	5.5	V
O.T.R	T _{OPR}	-	-40	+25	+85	°C

• Frequency Characteristics

(*1 & *2 Equivalent to 13 secs per month)

Item	Symbol	Condition	Rating	Unit
Freq. Tol.	$\Delta f/f$	T _a = +25°C V _{DD} = 3.0V	AA: 5 ±5 (*1) AC: 0 ±5 (*2)	x10 ⁻⁶
Oscillator Start-up Time	t _{STA}	T _a = +25°C V _{DD} = 2.0V	1 Max.	Second
Freq/Volt Characteristics	f/V	T _a = +25°C V _{DD} = 2.0V to 5.5V	±1 Max	x10 ⁻⁶

• Current Consumption Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Current	IBK	CE = GND FOUT: Output off (Hi-z)	V _{DD} = 5V	0.6	1.8	μA
		V _{DD} = 3V	0.48	1.2		
	I32k	CE = GND FOUT: 32.768kHz O/P on	V _{DD} = 3V	0.65	2.00	

• Power supply Detection Voltage

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
High Voltage Mode	V _{DETH}	V _{DD} Pin	1.90	2.10	2.30	V
Low-Voltage Mode	V _{DETL}	V _{DD} Pin	1.15	1.30	1.45	V