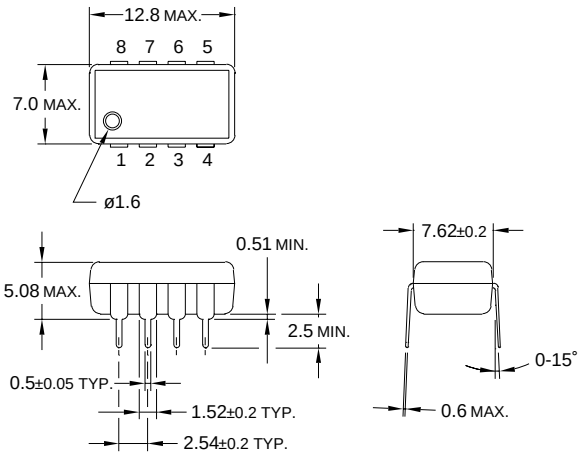

MAXIMUM ABSOLUTE RATING

ITEM	SYMBOL	RATING
POWER SUPPLY VOLTAGE	V_{DD}	-0.5 to +7.0 Volts
INPUT VOLTAGE	V_I	-0.03 to V_{DD} +0.3 Volts
OUTPUT VOLTAGE	I_O	±25mA
STORAGE TEMPERATURE RANGE	T_{STG}	-55˚Cto +125˚C
FREQUENCY STABILITY		±100ppm (-10˚C to +70˚C)

OPERATING CONDITIONS

ITEM	SYMBOL	RATING		
		MIN.	TYP.	MAX.
POWER SUPPLY VOLTAGE	V_{DD}	3.0 Volt	5.0 Volt	6.0 Volt
OPERATING TEMPERATURE RANGE	T_{OPR}	-10˚C	25˚C	70˚C

ELECTRICAL CHARACTERISTICS

ITEM		SYMBOL	CONDITION	MINIMUM	TYPICAL	MAXIMUM
HIGH INPUT VOLTAGE		V_{IH}		3.6 Volts		
LOW INPUT VOLTAGE		V_{IL}				0.8 Volts
HIGH OUTPUT VOLTAGE		V_{OL}	I OUT = -20µA I OUT = -4mA	4.75 Volts 4.5 Volts		
LOW OUTPUT VOLTAGE		V_{OL}	I OUT = -20µA I OUT = -4mA			0.25 Volts 0.5 Volts
RISE TIME		T_{TLH}			10nS	15nS
FALL TIME		T_{TLH}			10nS	15nS
INPUT CURRENT		I_I	V_{IN} = V_{DD} or GND			±1.0µA
START UP TIME	POWER SUPPLY	T_{VU}				1.5mS
	STANDBY	T_{STU}				1.5mS
OUTPUT WAVEFORM (SYMMETRY)		T_1 / T_2		40% / 60%		60% / 40%
CURRENT CONSUMPTION		I_{DD}				20mA
STANDBY CURRENT		I_{ST}				10mA
AGING (FIRST YEAR)					±5ppm	

MECHANICAL CHARACTERISTICS

ITEM	CONDITIONS
MECHANICAL SHOCK	THE PRODUCT SHALL MEET THE SPECIFICATIONS AFTER A SHOCK OF 1000G. 1/2 SEMI-SINE WAVE IMPULSE. PULSE DURATION OF 0.35mS IS APPLIED TO 3 DIRECTIONS AT ONCE.
VIBRATION	THE PRODUCT SHALL MEET THE SPECIFICATIONS AFTER THE FOLLOWING 2 MEASUREMENTS ARE MADE. 1. 3 DIRECTIONS OF X,Y AND Z IN THE FOLLOWING CONDITIONS:- PULSE WIDTH: 1.5mm FREQUENCY: 10 Hz to 55 Hz DURATION: 1 HOUR. 2 3 DIRECTIONS OF X,Y AND Z IN THE FOLLOWING CONDITIONS:- FREQUENCY: 50 Hz to 2000 Hz ACCELERATION: 20G DURATION: 1 HOUR.
RESISTANCE TO SOLDERING HEAT	THE PRODUCT SHALL MEET THE SPECIFICATIONS AFTER DIPPING THE LEAD WIRE IN A SOLDERING BATH OF 260˚C FOR 10 SECONDS UP TO A POSITION WHERE IT IS 1mm AWAY FROM THE ROOT OF THE PLUG.
SOLDERABILITY	MORE THAN 90% OF THE SOLDERING SURFACE SHALL BE MASKED WITH NEW SOLDER AFTER DIPPING INTO A SOLDERING BATH OF 230˚C FOR 3 SECONDS.
RESISTANCE TO SOLVENT	NO CHANGE IN EXTERNAL APPEARANCE AND HERMETICITY SHALL BE FOUND AFTER DIPPING IN FLUORIC SOLVENT FOR 90 SECONDS.

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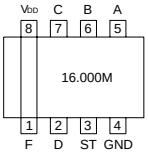
CONNECTION OF TERMINALS

(DIVIDER SELECT)



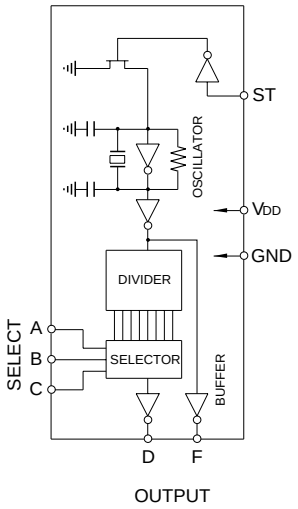
OUTPUT

1.F: OUTPUTS FUNDAMENTAL OSCILLATION (fo) OF THE BUILT IN OSCILLATOR.
2.D: OUTPUTS PROGRAMMED DIVIDING FREQUENCY ($fo/2^n$)
3.ST (STANDBY TERMINAL): OSCILLATES AT HIGH LEVEL AND STOPS OSCILLATION AT LOW LEVEL. IF YOU DO NOT WANT THIS FUNCTION, ALWAYS SET TO HIGH LEVEL.
4. GROUND:
5.A, 6.B, 7.C: PROGRAMS DIVIDING RATIO FOR FUNDAMENTAL OSCILLATORS
8.V_{DD} POWER SUPPLY VOLTAGE

PROGRAM OF FREQUENCY OUTPUT

INPUT				OUTPUT	
SELECT			ST	F FUNDAMENTAL OSCILLATION	D DIVIDING FREQUENCY
C	B	A			
L	L	L	H	fo CLOCK	fo ·1/2 CLOCK
L	L	H	H	fo CLOCK	fo ·$1/2^2$ CLOCK
L	H	L	H	fo CLOCK	fo ·$1/2^3$ CLOCK
L	H	H	H	fo CLOCK	fo ·$1/2^4$ CLOCK
H	L	L	H	fo CLOCK	fo ·$1/2^5$ CLOCK
H	L	H	H	fo CLOCK	fo ·$1/2^6$ CLOCK
H	H	L	H	fo CLOCK	fo ·$1/2^7$ CLOCK
H	H	H	H	fo CLOCK	fo ·$1/2^8$ CLOCK
-	-	-	L	L	L

BLOCK DIAGRAM



OUTPUT

STANDARD FREQUENCY MHz (26 FUNDAMENTAL OSCILLATION WAVELENGTH)

fo (FUNDAMENTAL FREQUENCY)	$fo/2^n$ (DIVIDING FREQUENCY)							
$1/2^0$	$1/2^1$	$1/2^2$	$1/2^3$	$1/2^4$	$1/2^5$	$1/2^6$	$1/2^7$	$1/2^8$
12 MHz	6 MHz	3 MHz	1.5 MHz	750 kHz	375 kHz	187.5 kHz	93.75 kHz	46.875kHz
12.288	6.144	3.072	1.536	768	384	192	96	48
12.8	6.4	3.2	1.6	800	400	200	100	50
14.31818	7.15909	3.579545	1.789772	894.88	447.44	223.72	111.860	55.930
14.5	7.25	3.625	1.8125	906.25	453.125	226.562	113.281	56.640
14.7456	7.3728	3.6864	1.8432	921.6	460.8	230.4	115.2	57.6
14.9105	7.4552	3.7276	1.8638	931.906	465.953	232.976	116.488	58.244
15	7.5	3.75	1.875	937.5	468.75	234.375	117.187	58.593
15.36	7.68	3.84	1.92	960	480	240	120	60
15.9744	7.9872	3.9936	1.9968	998.4	499.2	249.6	124.8	62.4
16	8	4	2	1000	500	250	125	62.5
16.128	8.064	4.032	2.016	1008	504	252	126	63
16.257	8.1285	4.06425	2.032125	1016.062	508.03	254.015	127.007	63.503
16.384	8.192	4.096	2.048	1024	512	256	128	64
17.734476	8.867238	4.433619	2.216809	1108.4	554.2	277.1	138.55	69.275
18.432	9.216	4.608	2.304	1152	576	288	144	72
19.0909	9.54545	4.772725	2.386362	1193.181	596.590	298.295	149.147	74.573
19.2	9.6	4.8	2.4	1200	600	300	150	75
19.6608	9.8304	4.9152	2.4576	1228.8	614.4	307.2	153.6	76.8
20	10	5	2.5	1250	625	312.5	156.25	78.125
20.48	10.24	5.12	2.56	1280	640	320	160	80
21.47727	10.738635	5.369317	2.68465	1342.329	671.164	355.582	167.791	83.8955
22	11	5.5	2.75	1375	687.5	343.75	171.875	85.9375
22.1184	11.0592	5.5296	2.7648	1382.4	691.2	345.6	172.8	86.4
24	12	6	3	1500	750	375	187.5	93.75
24.576	12.288	6.144	3.072	1536	768	384	192	96

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