

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
D	REVISED FREQ TABLE	5/5/99	AWB

DUPLICATE DRAWING
DO NOT REVISE

- 1.0 MONITOR PART NUMBER 4192-XX
- 2.0 CLASSIFICATION HYBRID OSCILLATORS, HCMOS, TRI-STATE
- 3.0 ELECTRICAL CHARACTERISTICS (NOTE 1)
- 3.1 NOMINAL FREQUENCY SEE TABLE 1 SHEET 2
- 3.1.1 CALIBRATION TOLERANCE INCLUDED IN 3.1.3.1
- 3.1.2 ADJUSTMENT RANGE N/A
- 3.1.2.1 ADJUSTMENT RESOLUTION N/A
- 3.1.3 STABILITY
- 3.1.3.1 FREQUENCY vs AMBIENT ±50PPM FROM 0°C TO +70°C, ±100PPM FROM -55°C TO +105°C
- 3.1.3.2 FREQUENCY vs VOLTAGE ±2PPM FOR 10% CHANGE IN VCC
- 3.1.3.3 FREQUENCY vs LOAD ±1PPM FOR 20% CHANGE IN LOAD
- 3.1.3.4 FREQUENCY vs TIME
- 3.1.3.4.1 SHORT TERM N/A
- 3.1.3.4.2 LONG TERM ±5PPM / 30 DAYS AT 70°C PER MIL-0-55310
- 3.1.3.4.3 PHASE JITTER N/A
- 3.1.3.4.4 WARM UP TIME 90% OF OUTPUT AMPLITUDE WITHIN 10mSEC
- 3.2 WAVE FORM HCMOS COMPATIBLE
- 3.2.1 SYMMETRY/THD 60/40 PERCENT OR BETTER
- 3.2.2 AMPLITUDE LOGIC 1: VCC-0.5V MIN, LOGIC 0: 0.5V MAX
- 3.2.3 RISE/FALL TIME 10% OF THE TIME PERIOD OF THE SPECIFIED FREQUENCY
- 3.2.4 LOAD CL = 50pF MAX
- 3.3 VCC0 TRANSFER CHARACTERISTICS
- 3.3.1 TOTAL FREQUENCY CHANGE N/A
- 3.3.2 CONTROL VOLTAGE RANGE
- 3.3.3 TRANSFER COEFFICIENT and SENSE
- 3.3.4 LINEARITY
- 3.3.5 MODULATION RATE/RESPONSE N/A
- 3.4 POWER INPUT
- 3.4.1 OSCILLATOR VOLTAGE/CURRENT +5 VDC ±10% / 30mA MAX, 8-12 mA TYP
- 3.4.2 OVEN VOLTAGE/CURRENT N/A
- 4.0 ENVIRONMENTAL
- 4.1 AMBIENT TEMPERATURE RANGE
- 4.1.1 OPERATING -55°C TO +105°C
- 4.1.2 STORAGE -62°C TO +125°C
- 4.2 VIBRATION MIL-STD-202 METHOD 204 OPERATING AND NON OPERATING
- 4.3 SHOCK MIL-STD-202 METHOD 213 TEST COND E
- 4.4 HUMIDITY 85% RH 85°C 48 HOURS
- 4.5 OTHER LEAK RATE 2X10E-8 CC/HELIUM

5.0 MECHANICAL

5.1 MATERIAL/FINISH CERAMIC GLASS SEAL, SOLDER DIPPED PADS

5.2 PIN CONNECTION

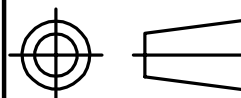
1	ENABLE/DISABLE	5	9	13
2	GROUND	6	10	14
3	OUTPUT	7	11	15
4	+5VDC	8	12	16

NOTE 1 - ALL PERFORMANCE FIGURES ARE MEASURED UNDER THE FOLLOWING TEST

CONDITION

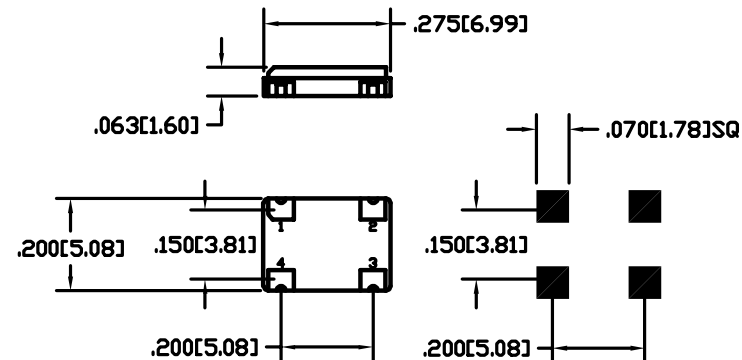
- A. AMBIENT TEMP. +25 ±5C EXCEPT PARA 3.1.3.1.
- B. INPUT VOLTAGES: NOMINAL ±1% EXCEPT PARA 3.1.3.2.

THIRD ANGLE PROJECTION



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS DECIMALS ANGLES
31/64 .005 .01

MATERIAL
FINISH
DO NOT SCALE DRAWING



DIMENSIONS IN BRACKETS ARE METRIC

CONTRACT NO.		MONITOR PRODUCTS CO., INC. OCEANSIDE, CALIFORNIA			
APPROVALS		DATE		SPECIFICATION CONTROL, OSC, HCMOS, TRI-STATE	
DRAWN	AWB	3/31/94		SIZE	GAGE NO.
CHECK	LB	3/31/94		B	54331
ISSUE	MSA	4/4/94		DWG NO.	14904
SCALE: 10/1		CAP FILE: SP4192D2.ACD		SHEET	1 of 2

14904

D

DASH NO.	FREQUENCY IN MHz	DASH NO.	FREQUENCY IN MHz	DASH NO.	FREQUENCY IN MHz	DASH NO.	FREQUENCY IN MHz
-01	1. 843200	-31	39. 321600	-61	66. 000000	-91	
-02	4. 000000	-32	39. 398400	-62	45. 000000	-92	
-03	4. 354500	-33	40. 000000	-63	37. 632000	-93	
-04	7. 108000	-34	40. 550400	-64	37. 056000	-94	
-05	7. 200000	-35	41. 472000	-65	2. 048000	-95	
-06	8. 000000	-36	43. 243200	-66	2. 000000	-96	
-07	9. 830400	-37	44. 000000	-67	65. 000000	-97	
-08	10. 000000	-38	48. 000000	-68		-98	
-09	12. 000000	-39	48. 152000	-69		-99	
-10	14. 318180	-40	11. 059200	-70		-100	
-11	16. 000000	-41	57. 600000	-71		-101	
-12	17. 734476	-42	64. 000000	-72		-102	
-13	18. 000000	-43	22. 500000	-73		-103	
-14	18. 432000	-44	66. 666666	-74		-104	
-15	19. 660800	-45	20. 000000	-75		-105	
-16	5. 000000	-46	24. 576000	-76		-106	
-17	20. 736000	-47	20. 160000	-77		-107	
-18	23. 587000	-48	7. 372800	-78		-108	
-19	24. 000000	-49	3. 686400	-79		-109	
-20	25. 000000	-50	50. 000000	-80		-110	
-21	25. 175000	-51	12. 288000	-81		-111	
-22	25. 426500	-52	60. 000000	-82		-112	
-23	28. 322000	-53	19. 440000	-83		-113	
-24	28. 375000	-54	27. 000000	-84		-114	
-25	28. 636360	-55	16. 384000	-85		-115	
-26	30. 000000	-56	28. 000000	-86		-116	
-27	32. 000000	-57	44. 900000	-87		-117	
-28	33. 333333	-58	80. 000000	-88		-118	
-29	36. 000000	-59	40. 608000	-89		-119	
-30	36. 864000	-60	33. 000000	-90		-120	

TABLE 1

DWG NO.
14904

SH
2

REV
D

		SIZE	CAGE NO.	DWG NO.	REV
DRAWN:AWB	3/31/94	B	54331	14904	D
ISSUED:MSA	4/4/94	SCALE	10/1	FILE:SP4192D2,A13	SHEET 2 of 2