

Programmable - High Performance SMD XO & VCXO

ASG-D Series



RoHS
Compliant



7.0 x 5.0 x 1.9mm

FEATURES:

- ASG series is a High Performance crystal based oscillator; available either as an XO or a VCXO
- Frequency range from 10MHz to 250MHz with LVCMOS output
- Available from 10MHz to 1.50GHz with LVDS or LVPECL output
- Offered with either 2.50V or 3.30V bias voltage
- Quick turn, 1~5 business days for small quantity orders

APPLICATIONS:

- Networking, SONET/SDH
- WiMax / WLAN
- Computing
- Phase Locked Loops
- Direct Digital Synthesis (DDS)
- DSL/ADSL
- Base Terminal Stations

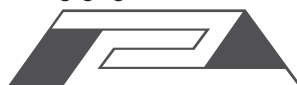
STANDARD SPECIFICATIONS:

| Parameters | | Minimum | Typical | Maximum | Units | Notes |
|---|----------------------------------|--|----------|-----------------|-------|---------------------|
| Frequency Range: | V _{dd} = 3.3V | 10 | | 1500 | MHz | |
| | V _{dd} = 2.5V | 10 | | 1500 | MHz | |
| Operating Temperature: | | -40 | | +85 | °C | |
| Storage Temperature: | | -55 | | +125 | °C | |
| Overall Frequency Stability: | | -50 | | +50 | ppm | <i>See Note # 1</i> |
| Initial Set Tolerance | | -5.00 | ≤ ±1.00 | +5.00 | ppm | |
| Stability over operating temperature | | -35.00 | ≤ ±20.00 | +35.00 | ppm | |
| Aging @ 25°C over 10-years | | -7.00 | | +7.00 | ppm | |
| Frequency variation over supply voltage change (±5%) | | -2.00 | | +2.00 | ppm | |
| Frequency variation over load variation (15pF ± 5%) | | -1.00 | | +1.00 | ppm | |
| Supply Voltage (V _{dd}): | V _{dd} = 3.3V | 3.135 | 3.300 | 3.465 | V | |
| | V _{dd} = 2.5V | 2.375 | 2.500 | 2.625 | V | |
| Input Current: | V _{dd} = 3.3V | | < 25 | 40 | mA | Frequency dependent |
| | V _{dd} = 2.5V | | < 25 | 35 | mA | Frequency dependent |
| LVDS Output (Out & <i>Out</i>): | Differential Output Voltage | 175 | 350 | | mV | V _{OD} |
| | V _{OD} Magnitude Change | | | 50 | mV | ΔV _{OD} |
| | Offset Voltage | | 1.25 | | V | V _{OS} |
| | V _{OS} Magnitude Change | | | 50 | mV | ΔV _{OS} |
| | Duty Cycle | 45 | 48/52 | 55 | % | ODC _{LVDS} |
| | Rise Time | 125 | | 350 | ps | t _R |
| | Fall Time | 150 | | 450 | ps | t _F |
| Start-up Time: | | | ≤ 2.0 | 3.0 | ms | |
| Enable/Disable Function : | | "1" (V _{IH} ≥ 0.7*V _{dd}) or Open: Oscillation "0" (V _{IL} < 0.3*V _{dd}) : High Z | | | | |
| V _{control} Range | | 0.00 | | V _{dd} | Volts | For VCXO |
| Frequency Pull | | ±50 | | | ppm | |
| Control Port Bandwidth | | 10 | | | kHz | |
| Phase jitter RMS [t _{jitt(φ)}] <i>See Note #2</i> | Integer Mode | | < 0.60 | 1.60 | ps | 12kHz to 20MHz |
| | Fractional Mode | | < 0.90 | 1.60 | ps | 12kHz to 20MHz |

Note #1: Inclusive of initial tolerance at 25°C±3°C, operating temperature range, input voltage variation, load variation & aging.

Note #2: The rms jitter over 12kHz to 20MHz Bandwidth is dependent on the carrier and whether or not the final frequency is achieved without engaging the Fractional Mode

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

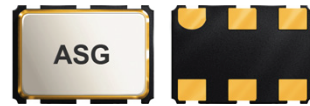
Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.17.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Programmable - High Performance SMD XO & VCXO

ASG-D Series

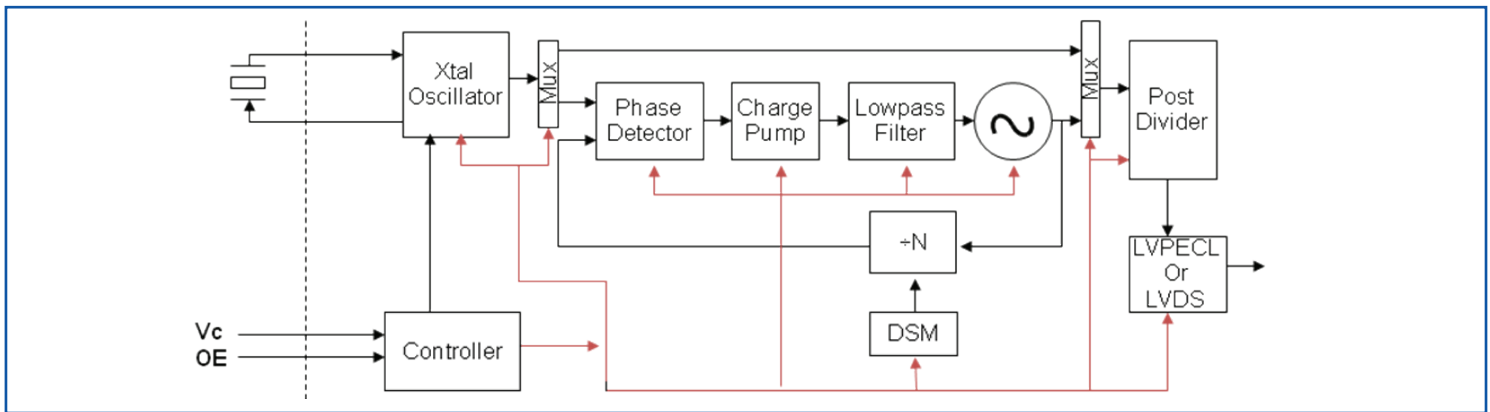


RoHS
Compliant



7.0 x 5.0 x 1.9mm

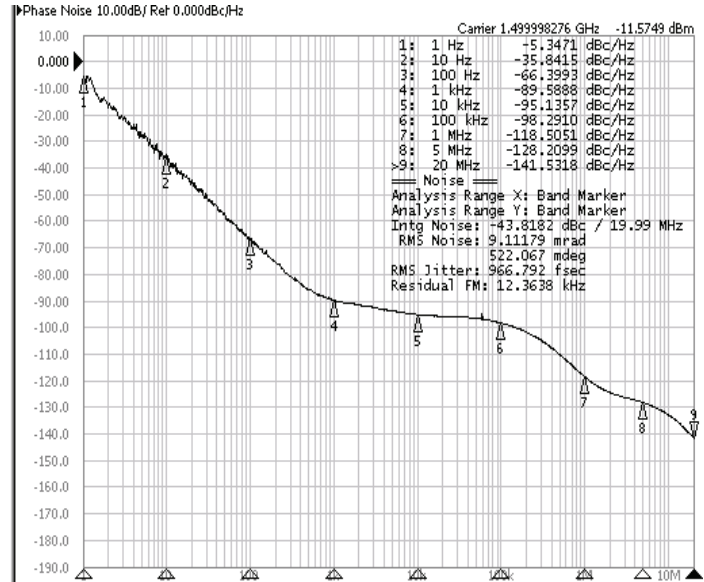
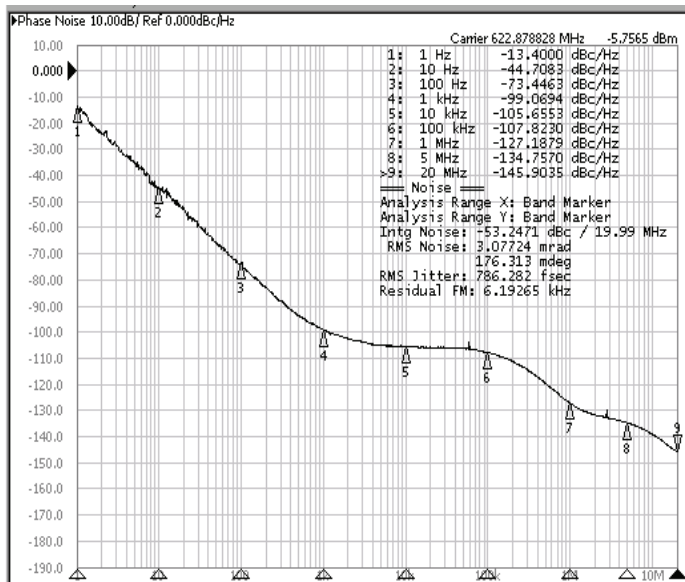
OVERALL SYSTEM BLOCK DIAGRAM



PHASE NOISE & JITTER CHARACTERISTICS

622.88MHz Carrier

1.50GHz Carrier



Programmable - High Performance SMD XO & VCXO

ASG-D Series



RoHS
Compliant



7.0 x 5.0 x 1.9mm

FREQUENCY STABILITY VS. TEMPERATURE



FREQUENCY PULLING VS. CONTROL VOLTAGE (VCXO MODE)



PART IDENTIFICATION:

ASG - D - [] - [] - [] MHz - []

| Fixed or Pull-able |
|----------------------|
| X = Fixed Oscillator |
| V = VCXO |

| Operating Voltage |
|-------------------|
| 3.30V = A |
| 2.50V = B |

| Frequency in MHz |
|-------------------------------------|
| Please specify the Frequency in MHz |
| e.g. 100.000 MHz |

| Packaging |
|-----------------|
| Blank = Bulk |
| T = Tape & Reel |

MARKING:

Top Line:
Bottom Line:

Pin# 1 Identifier

ASG
GYWW

WW = Work Week

Year Code (B=2011, C=2012, etc.)

Internal Tracking Code

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.17.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Programmable - High Performance SMD XO & VCXO

ASG-D Series



RoHS
Compliant

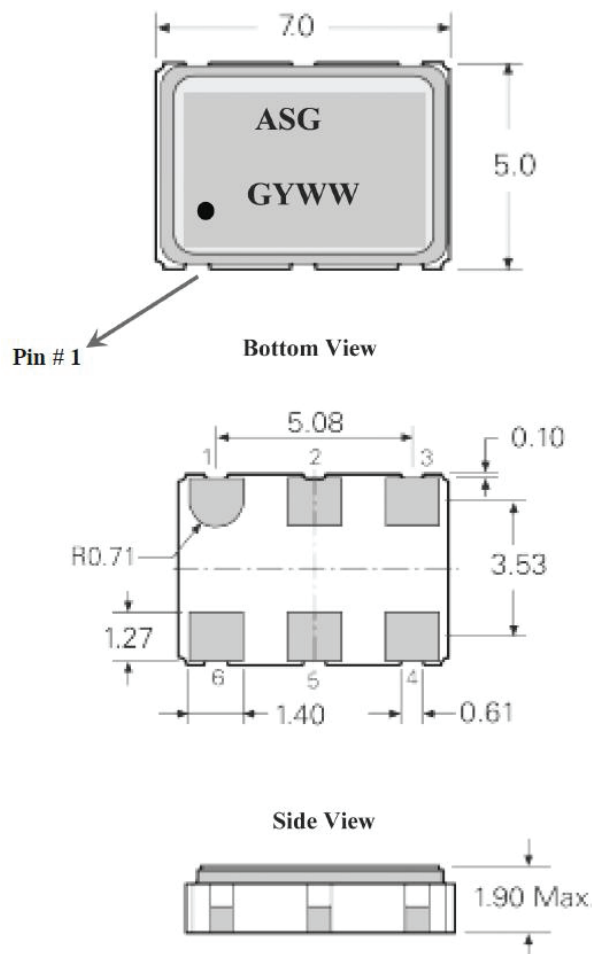


7.0 x 5.0 x 1.9mm

OUTLINE DIMENSIONS:

| Pin # | Pin Description For VCXO configuration |
|-------|---|
| 1 | Voltage Control for VCXO |
| 2 | Output Enable (OE) |
| 3 | GND |
| 4 | RF Output |
| 5 | RF <i>Output</i> |
| 6 | Vdd |

| Pin # | Pin Description For XO configuration |
|-------|---|
| 1 | Output Enable (OE) |
| 2 | N/C for XO |
| 3 | GND |
| 4 | RF Output |
| 5 | RF <i>Output</i> |
| 6 | Vdd |



REFLOW PROFILE:



ABRACON IS
ISO9001:2008
CERTIFIED



Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.17.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Programmable - High Performance SMD XO & VCXO

ASG-D Series



RoHS
Compliant

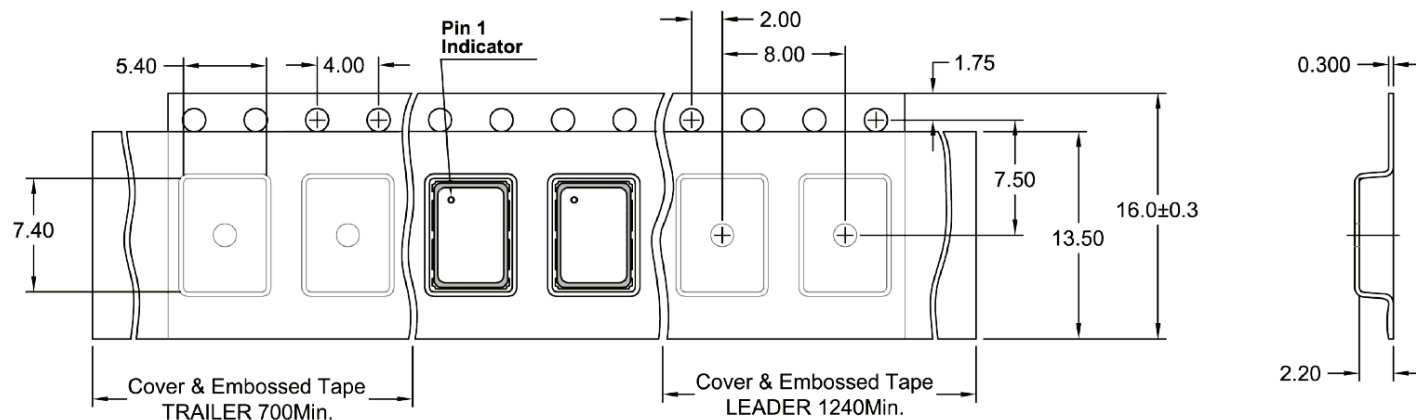


7.0 x 5.0 x 1.9mm

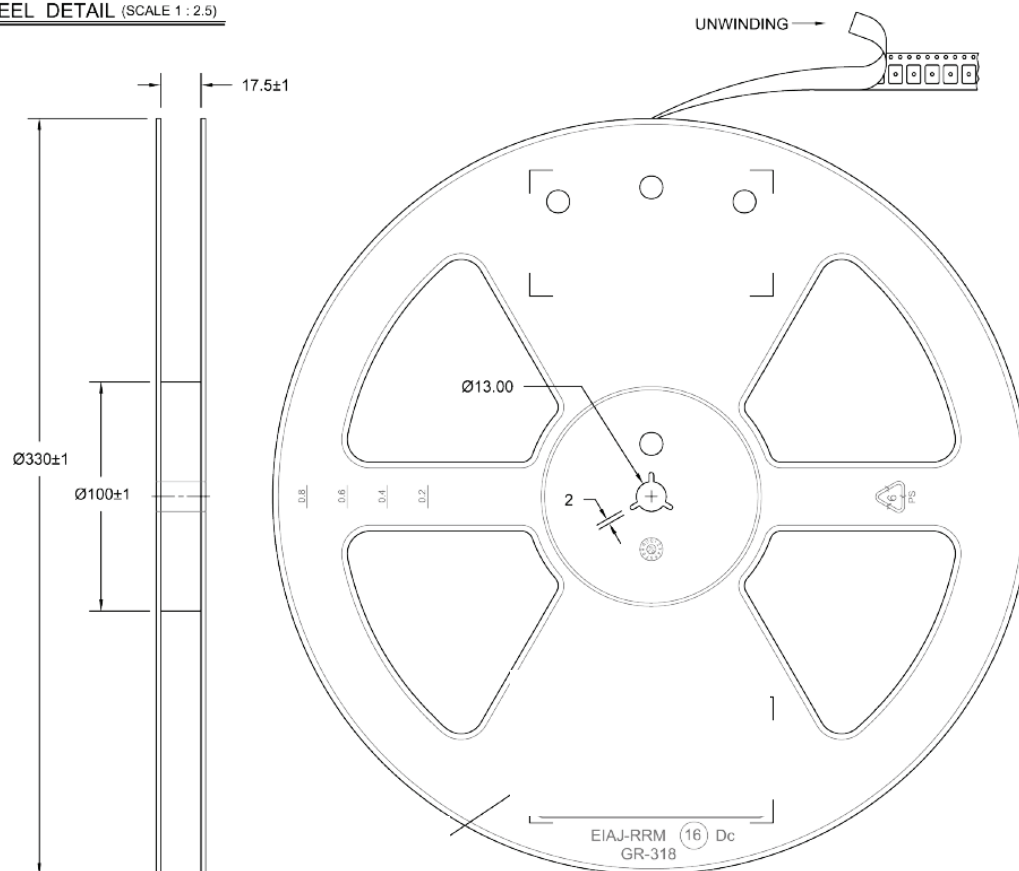
TAPE & REEL:

T= Tape and reel (2,000pcs/reel)

TAPE DETAIL (SCALE 2 : 1)



REEL DETAIL (SCALE 1 : 2.5)



ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO9001:2008
CERTIFIED

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.17.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.