Preliminary Specifications

DESIGN GOALS OUTLINE DRAWING Modulation Input +Vcc 50 Ohms Input Impedance Digital Input (SMB Male) Standard TTL Levels RF LEVEL MOD. INPUT ALC **RF** Output Center Frequency (Fc) 40 MHz ± 0.1% Output Power (SMA Female) 0.5 W 3.15 Rise/Fall Time 25 nsec Typ. 2.00 2.00 1.85 **RF Contrast Ratio** 35 dB min 1.00 .75 Harmonic Distortion -20 dBc **Output Impedance** 50 Ohms 1.25 Output VSWR 1.5:1 Max RF OUTPUT .81 Bandwidth 20 MHz Power Supply Voltage (+Vcc) +24 V @ 550 mA (4) ALC Voltage Level +3.5 to +21 V nominal 1.00 .56 -.25 .20 -3.50 Notes: 1. Output power factory set to 0.5 W at a 2.4 V, 30 mA input. Power stability less than 5% over the heat sink's ambient temperature range of 0-40° C, after 5 minute warm-up. 2. When calculating the contrast ratio, it is understood that only the power of the 40 MHz fundamental shall be used. The higher harmonics have no effect on the AO modulator's performance. 3. A +21 Volt nominal input on the ALC corresponds to full RF output power. Zero RF power occurs at an ALC voltage below +3.5 Volts. Full RF power occurs if ALC input is left unconnected. THIS DOCUMENT IS THE PROPERTY OF CRYSTAL TECHNOLOGY, INC. IT IS NOT TO BE REPRODUCED OR DISCLOSED IN WHOLE OR IN PART OTHER THAN BY EMPLOYEES OF CRYSTAL TECHNOLOGY AND ITS CONTRACTED REPRESENTATIVES AND DISTRIBUTERS. ANY EXCEPTION REQUIRES THE WRITTEN CONSENT OF AN AUTHORIZED REPRESENTATIVE OF CRYSTAL TECHNOLOGY. OLERANCES: .XX ± .01 .XXX ± .005 T. Moon Gooch & Housego DR 10/23/2014 DESCRIPTION CHK AODR 1040AF-DIF0-0.5 RoHS APP Compliant PART NUMBER

APP

97-03307-75

1 of 1