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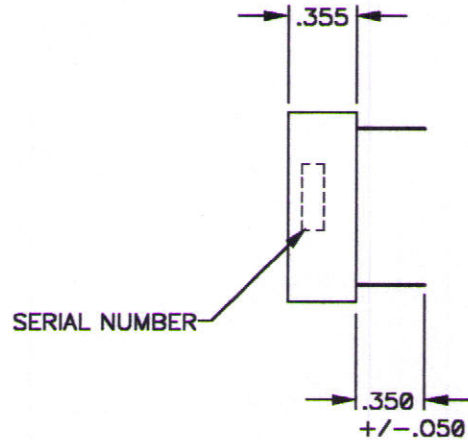
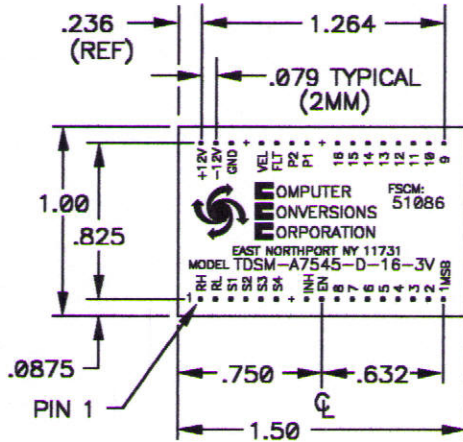
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RESOLVER TO DIGITAL CONVERTER  
WITH INTERNAL REFERENCE GENERATOR

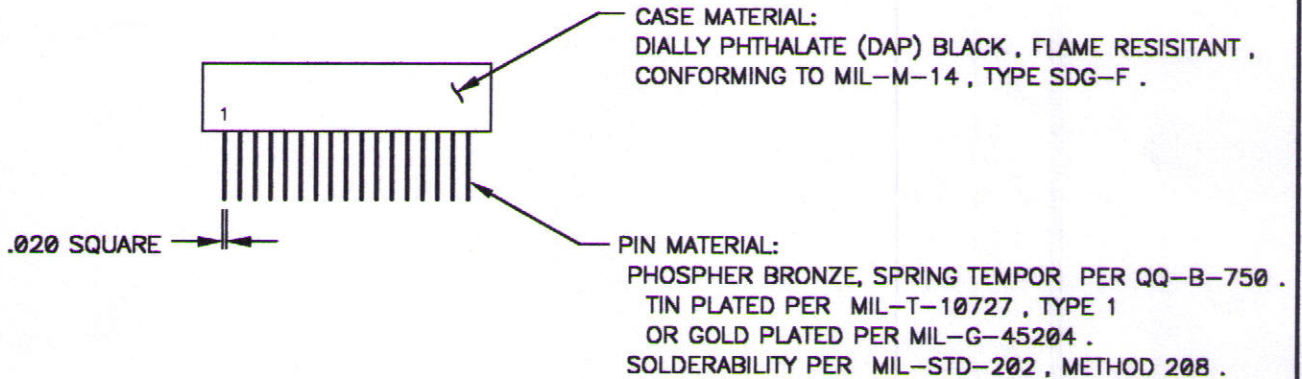
"TDSM-A7545-D-16-3V"

DWG # A7545-4 REV-  
SHEET 1 of 1

MECHANICAL OUTLINE



SERIAL NUMBER



NOTES :

1. SEE SEPARATE ELECTRICAL SPECIFICATIONS DRAWING A7546-4 .



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RESOLVER TO DIGITAL CONVERTER  
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"TDSM-A7545-D-16-3V"

### SPECIFICATIONS

DWG # A7546-4 REV-  
SHEET 1 of 1

#### INPUT :

TYPE : RESOLVER , 4 WIRE , 0 TO 360 DEGREES .  
REFERENCE : INTERNALLY GENERATED TO PINS RH AND RL .  
VOLTAGE : 5.00V RMS  
FREQUENCY : 6000 HZ  
LOADING : 30 ma  
SIGNAL :  
VOLTAGE : 2.00V L-L  
FREQUENCY : 6000 HZ  
IMPEDANCE : 20K OHMS MINIMUM BALANCED  
PHASE SHIFT : +/-40 DEGREES (INTERNAL SYNTHESIZED REFERENCE)

#### DYNAMIC CHARACTERISTICS :

INPUT RATE : (PROGRAMMABLE RESOLUTION)  
AT 10 BIT 500.00 RPS P1 = "0" P1 = "0"  
AT 12 BIT 125.00 RPS P1 = "0" P2 = "1"  
AT 14 BIT 31.25 RPS P1 = "1" P2 = "0"  
NOT RECOMMENDED FOR 16 BIT

BANDWIDTH 600HZ

ACCELERATION FOR 1 LSB OF LAG : 1776528 DEGREES/S/S NOMINAL AT 10 BIT RESOLUTION

ACCELERATION CONSTANT  $k_a$  : 624560 DEGREES/S/S NOMINAL

ACCURACY : +/- 3.5 MINUTES , +1LSB

REPEATABILITY : +/- 2 LSB's

#### OUTPUT DATA : (DIGITAL)

TYPE : DIGITAL NATURAL BINARY ANGLE , POSITIVE LOGIC  
LOGIC : TTL COMPATIBLE  
RESOLUTION : PROGRAMMABLE FOR 14 , 12 OR 10 BITS ON PINS P1 AND P2 .  
LOADING : 1 LSTTL LOAD  
INHIBIT INPUT : LOGIC "0" FREEZES DATA AND IS STABLE WITHIN 150ns . LOGIC "1" = TRANSPARENT .  
ENABLE INPUT : LOGIC "0" ENABLES DATA (TRANSPARENT) AND IS STABLE WITHIN 150ns .  
LOGIC "1" = HI IMPEDANCE WITHIN 150ns .

#### OUTPUT DATA : (ANALOG)

TYPE : DC VOLTAGE REPRESENTING RESOLVER INPUT SPEED .  
SCALING : +/-4VDC REPRESENTING +/- INPUT RATE  
SCALE FACTOR +/-10 to 20% , LINEAR TO WITHIN +/- .25% ,  
REVERSAL ERROR OF +/- .75% OF FULL SCALE .

POWER SUPPLY INPUT : +12VDC @ 50ma , -12VDC @ 50ma AND COMMON GND .

#### TEMPERATURE RANGE :

OPERATING : -40 TO +85 DEGREES C  
STORAGE : -55 TO +125 DEGREES C

#### MECHANICAL :

1.50"L x 1.00"W x .355"H PLASTIC (BLACK DAP) ENCAPSULATED CASE  
WITH PC PINS SUITABLE FOR PCB MOUNTING .

SEE DWG # A7545-4 .