TRANSMAGNETICS

SERIES 1505

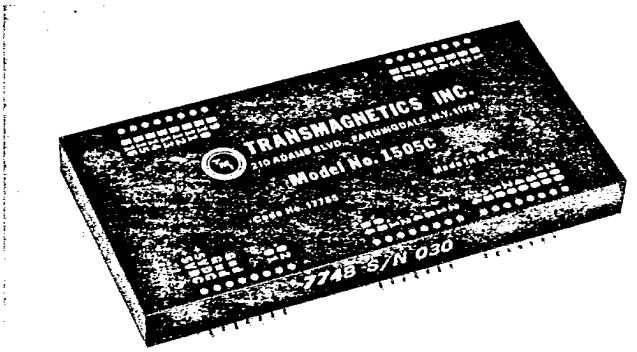
Revised December 1985

BINARY ANGLE TO SCALED BCD ANGLE

(To 16 Bits)

FEATURES:

- **Accuracy of 0.008°**
- **TTL/DTL Compatible**
- **Avaialable for either 0°C to +70°C or −55°C to +100°C operation.**
- **Meets MIL-STD-202D, methods 204B, 101C,105B, 106C, 107C, and 205D**
- **Hi-Rel 883B units on request**



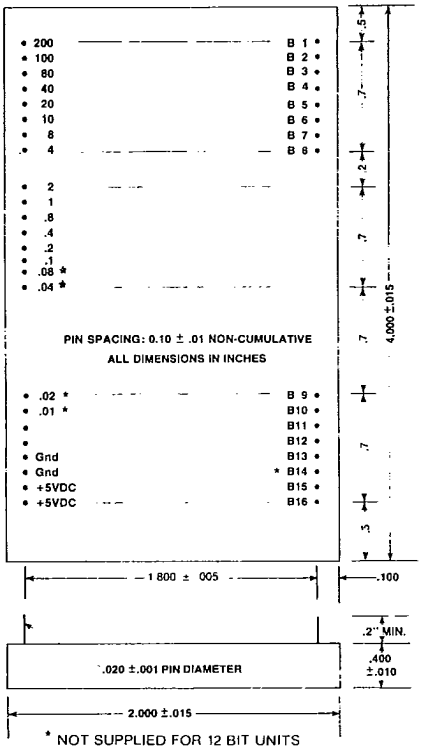
DESCRIPTION:

This miniaturized, all solid state device, accepts either 14 bit, 15 bit or 16 bit binary parallel data and converts this information into 5 decade BCD form. Input and output are scaled to represent an angular range of 0-359.99 mechanical degrees.

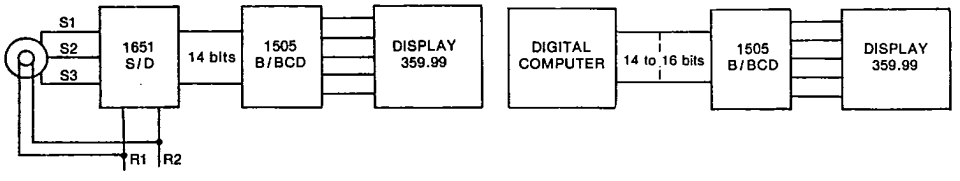
SPECIFICATIONS:	***16 Bits In**	***15 Bits In**	***14 Bits In**	**12 Bits In**
Accuracy:	±0.008°	±0.008°	±0.008°	±0.055°
Input Resolution:	0.005°	0.011°	0.022°	0.1°
Input Logic:	Parallel, Positive TTL Level, Binary Coded Angle			
Fan In:	1 TTL Load	1 TTL Load	1 TTL Load	1 TTL Load
Output Resolution:	5 Decade BCD	5 Decade BCD	5 Decade BCD	4 Decade BCD
Fan Out:	4 TTL Loads	4 TTL Loads	4 TTL Loads	4 TTL Loads
Conversion Time:	350 ns	350 ns	350 ns	350 ns
Power Required:	+5VDC±5% at 250ma	same	same	same
Weight:	4 oz.	4 oz.	4oz.	4oz.
Potting:	Units are potted.			

Operating Temperature: Model C: 0°C to 70°C, Model M: −55°C to +100°C
Storage Temperature: −65°C to +125°C

*While the accuracy remains the same, the output resolution is effected by a decrease in input resolution. Thus, with 14 bit input resolution, the output will change in 0.02° steps for each input LSB change. Occasionally the output will exhibit a 0.03° step to round off the input angle. With a 15 bit input the output will change in 0.01° steps with an occasional 0.02° step. With a 16 bit input the output will change consistently with 0.01° steps.



PRODUCT APPLICATIONS:



PART NUMBER DESIGNATION:

1505 ★-★-★

- Add 883 for Hi-Rel
- Add B for 12 bit units
- Temperature range (C or M)

APPLICATION NOTES:

Unused inputs should be grounded. Unused outputs should be left unconnected.
Externally parallel both common and both +5VDC pins.