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THE G-2004 FIBER OPTIC DIGITAL TELEMETER RECEIVER

FIBER OPTICS / DECODER

- 1300 nm E-LED
- SINGLEMODE(OR MULTIMODE OPTION)
- ST CONNECTORS
- REPEATER AVAILABLE AT 19.2 kb/s
- OPTICAL POWER BUDGET OF 10 db MIN.
- MANCHESTER DECODING



GENERAL DESCRIPTION

The G-2004 is a fiber optic version of the Da-Tel G-7804 digital telemeter receiver. The G-2004 receives a 10-bit digitized analog message and 6 status bits. The first 10 analog are converted by a d/a converter and amplifier to an output voltage or current. The 6 status pulses are used for the control of the multiplexing scheme or as system status.

The received manchester encoded data word is shown in figure 1 with the derived data, clock, and sync pulse.

FIBER OPTICS

The G-2004 uses one Hewlett-Packard HFBR-2315TM fiber optic receiver, a ML4622 quantizer circuit to detect and prepare the fiber optic word for the Harris HD-6409 CMOS manchester decoder. The logic circuits of the decoder then processes the data into 10 bits for the d/a converter and 6 status bits.

SECURITY

Two levels of security are available on the G-2004, parity and double scan error checking. Parity error checking is required in both single and double scan security configurations. If the data fails the parity check, the output latches are not updated.

Double scan security (a field selectable option) requires the data from the second word to be identical with the data from the first word received. Updating of the output latches is blocked until two successive, identical words are received.

POWER SUPPLY

- +/- 12 VDC at 60 mA
- + 5 VDC at 60 mA

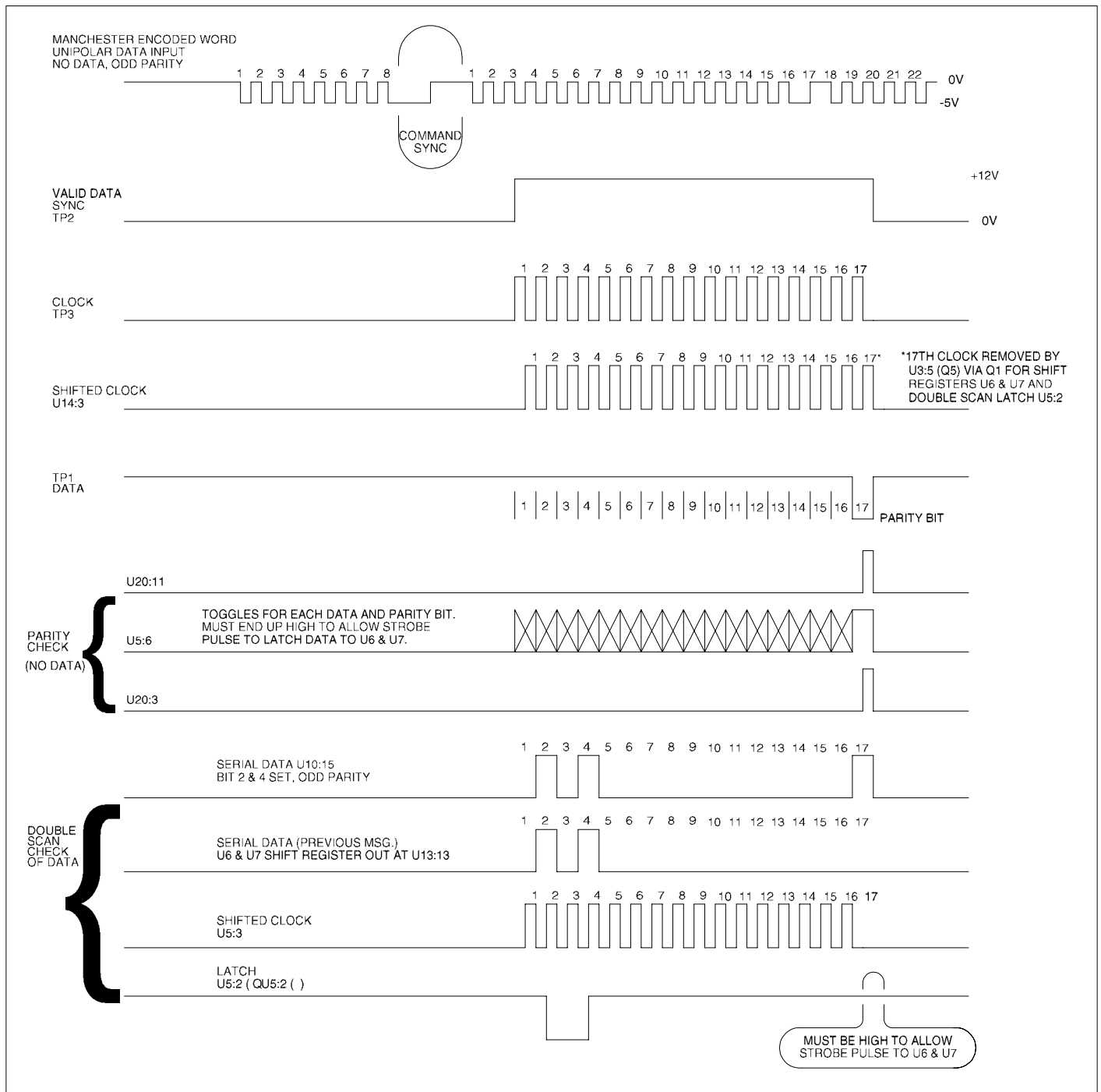


FIGURE 1.

NOTICE

As of the date of this printing, the specifications for the G-2004 in this Instruction Information sheet apply to all G-2004s, except as indicated. Because all Da-Tel products are continually being refined and improved, these specifications are subject to change without notice.