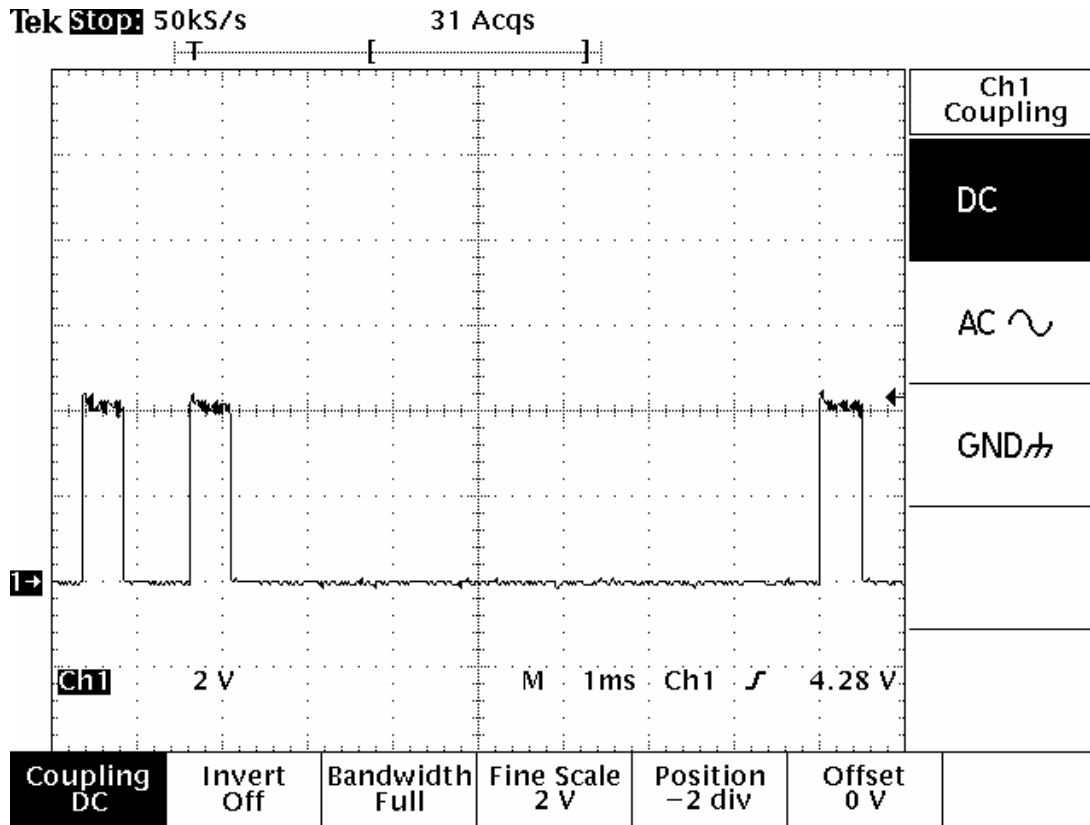


17 BITS / DATA WORD + 3 BLANK FRAMES BETWEEN WORDS

DATA WORD = 20 X 5000 USEC = 100 MILLISECONDS FOR NOMINAL DATA WORD FRAME

TWO DATA WORDS SHOWN ABOVE



INDIVIDUAL DATA PULSES, QUATERNARY ENCODED DATA FORMAT

500 µSEC FOR EACH DATA PULSE

TIME DURATION FOR EACH PULSE IS FIXED

3 DATA PULSES SHOWN ABOVE

Transmitter Duty Cycle Calculations and Time Domain Information

DX Data Format

Worst case duty cycle is computed because coded pulse width type A1D modulation is used. Data rate is seventeen 500 uSec pulses in any 100 mSec. time window.

During transmission, the transmitter sequentially emits a group of 17 encoded pulses in the form of a pulse-keyed carrier. The data stream consists of preamble and encoded data string.

REAL TIME ANALYSIS:

Description	Total Time	"On" Time
Total Transmission	17 x 500 uSec.	= 8.5 E-3 Sec on time

In compliance with FCC Rules 15.35(c), the following duty cycle factor is used for all field strength calculations. A 100 mSec. full word time window is selected with the worst case programmable on time ratio.

<u>8.5 E-3 On time</u>	= 8.5 E-2 on time per 100 mSec. time window
100 E-3 Total time Window	
$20 \log (8.5E-2) = -21.4 \text{ dB}$	20 dB Duty Cycle Ratio (Per FCC Rules)