

TOP FIVE REASONS

YOUR OSCILLOSCOPE'S

VOLTAGE READINGS MAY

APPEAR WRONG

~OR~

THE MOST COMMON MISTAKES MADE
BY NOVICES AND PROFESSIONALS

WBAEW
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WHY ARE MY READINGS
OFF BY A FACTOR OF 10?

- USE OF 10X OR 1X PROBES
- IMPROPER SETTING OF PROBE/CHANNEL ATTENUATION
- SEE VIDEO #9

W2AEN
③

WHT ARE MY READINGS
OFF BY A FACTOR OF 2?

- MOST COMMON WHEN USING SIGNAL / FUNCTION GENERATOR
- GENERATOR HAS 50 Ω OUTPUT, AND EXPECTS 50 Ω LOAD
- SCOPE INPUT IS HIGH IMPEDANCE
- SEE VIDEO #137

W2AEW

(A)

WHY ARE ALL MY READINGS
A LITTLE LOWER THAN THEY
SHOULD BE ?

- CHECK VOLTS / DN VERNIER CONTROL
- MOST COMMON ON OLDER ANALOG SCOPES

(SEE VIDEO #66 FOR ONE REASON
THIS CONTROL IS USED)

WHY ARE MY HIGH FREQUENCY

SIGNAL AMPLITUDE READINGS LOW?

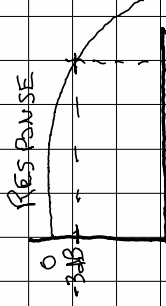
- BEWARE OF BANDWIDTH RATINGS

- SCOPE + PROBE BW SHOULD

BE 5X SIGNAL FREQUENCY

(FOR $< 2\%$ ERROR)

- SEE VIDEOS # 25, # 69 & # 70



W2AEW

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WHY ARE MY PROBED SIGNALS
SLIGHTLY HIGHER OR LOWER
THAN THEY SHOULD BE ?

- COMPENSATION OF I/O PROBES
IS CRITICAL

- MOST IGNORED & OVERLOOKED CAUSE

- SEE VIDEO # 206