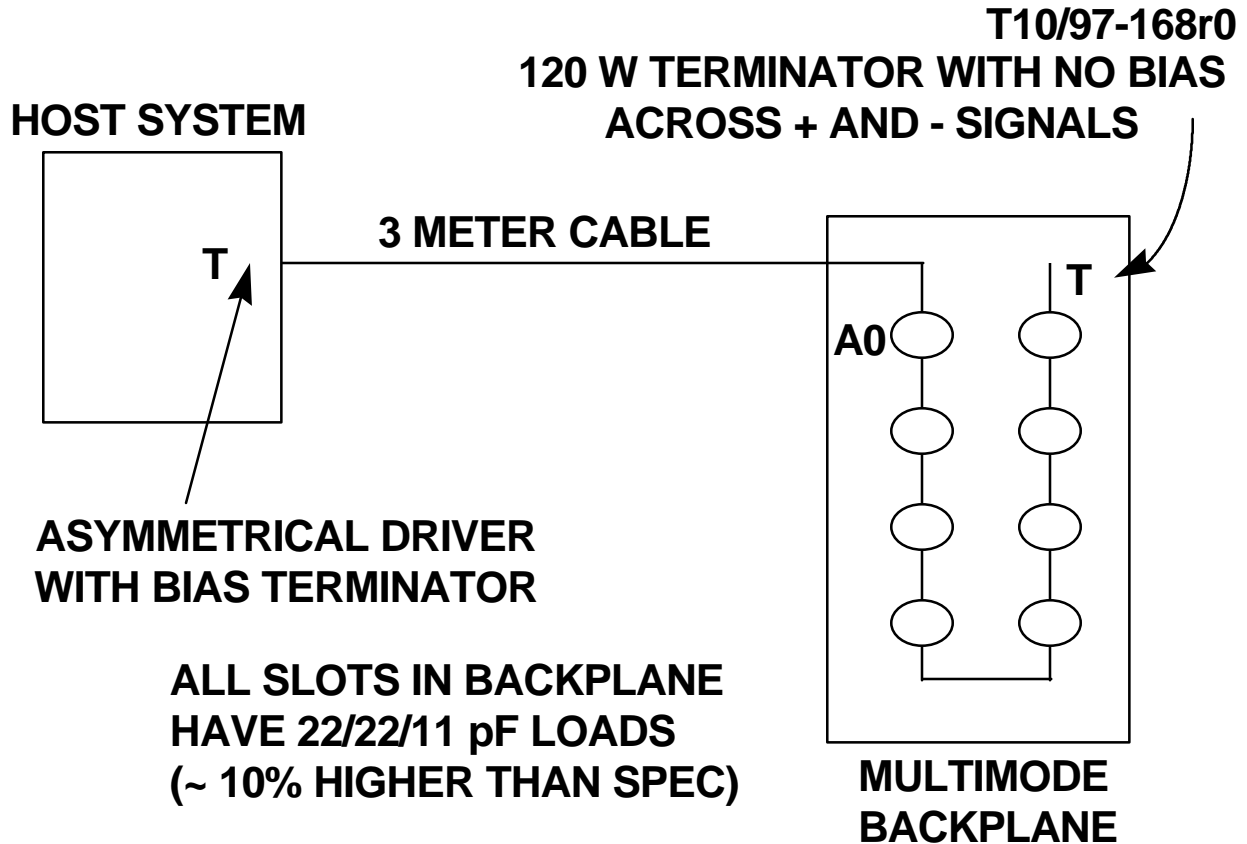


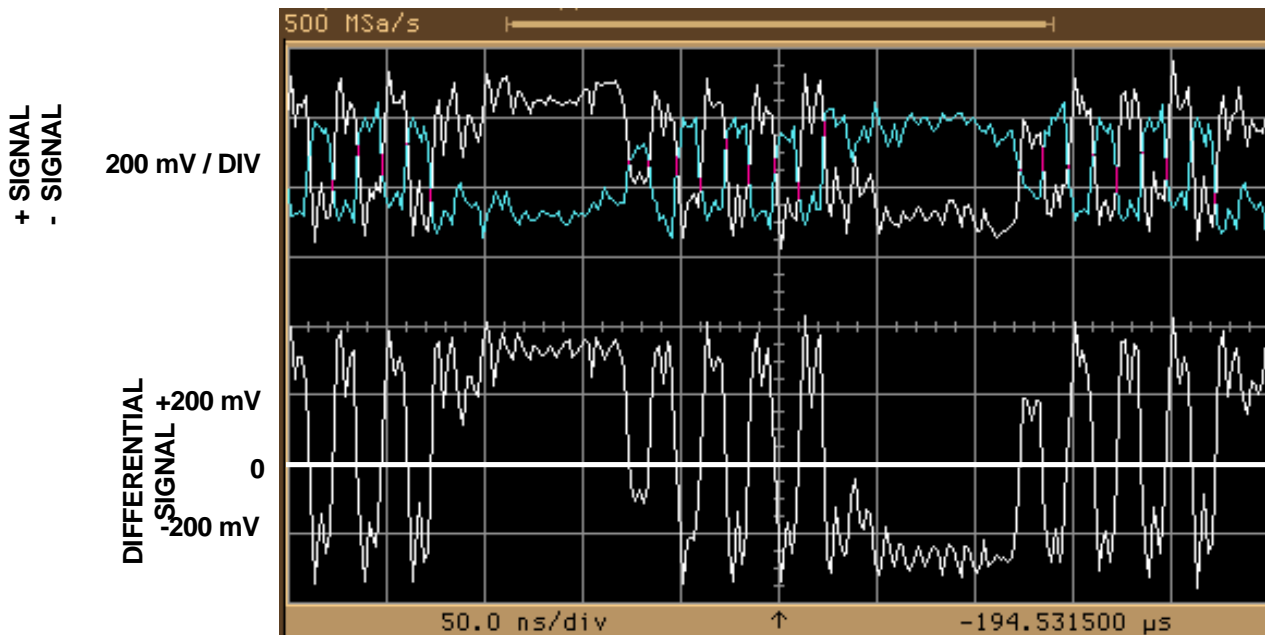
FAST 40 AND FAST 80 DATA FROM MULTIMODE BACKPLANES

- **THE FIRST DATA FROM ACTUAL MULTIMODE (SE/LVD) BACKPLANES IS PRESENTED**
- **THIS DATA SUGGESTS THAT THE MULTIMODE BACKPLANES WORK AS EXPECTED -- SUPPORTS BOTH SINGLE ENDED AND LVD IN THE SAME DESIGN**
- **FAST 80 AND FAST 40 WITH 10 METER CABLES WERE SHOWN TO PROBABLY REQUIRE EXPANDERS**

ULTRA-2 MULTIMODE BACKPLANE SYSTEM WITH NO EXPANDER



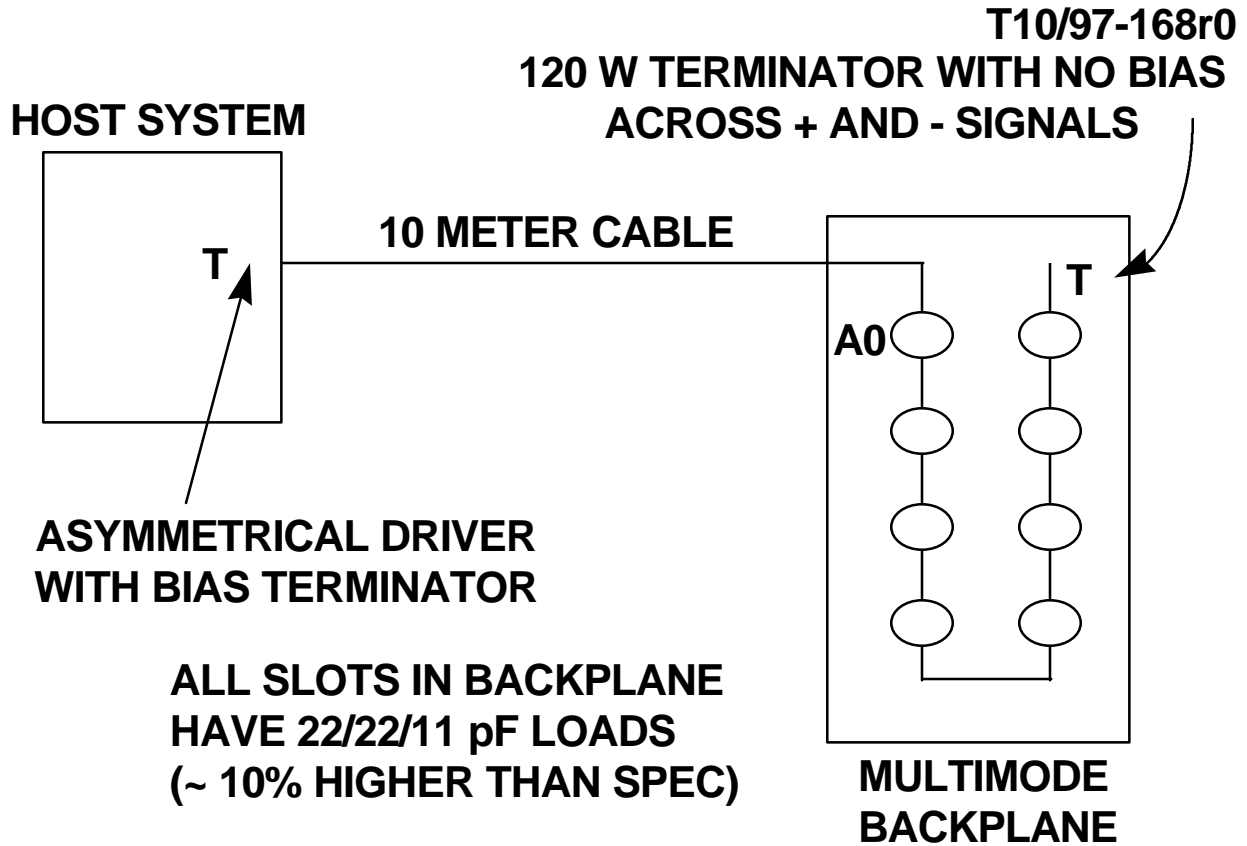
**(APPEARS TO BE OK WITHOUT EXPANDER IN THIS CASE)
DATA AT A0, FAST 40 RATES, WORST CASE DATA PATTERN**



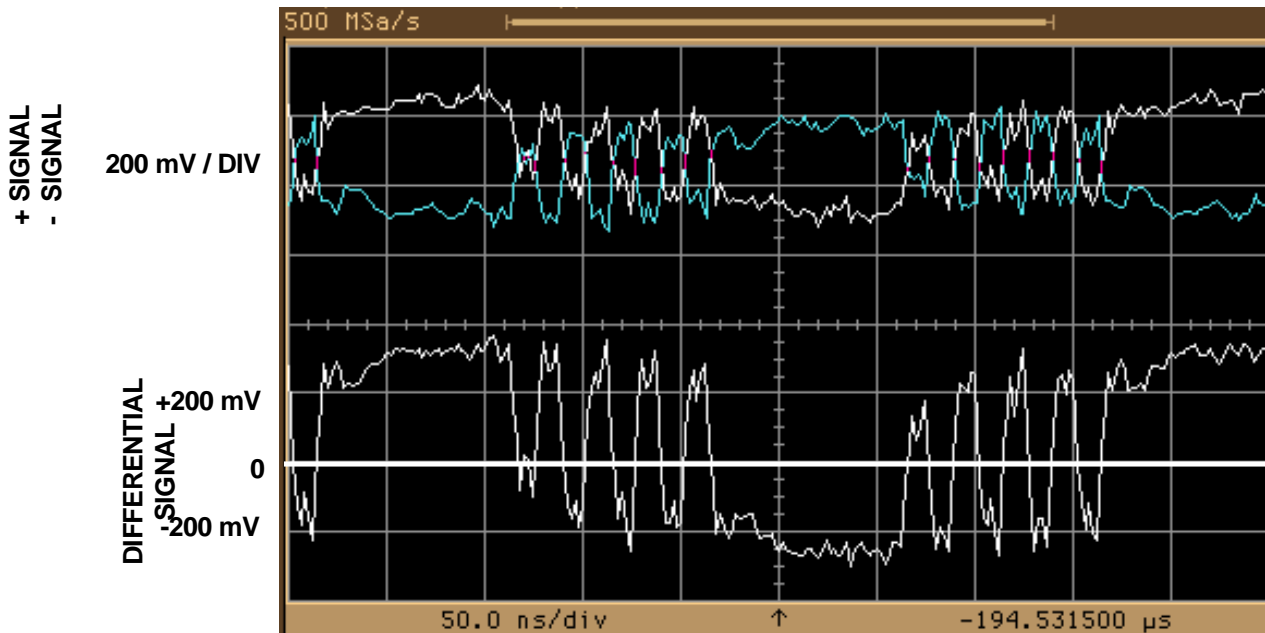
**NOTE: DIFFERENTIAL SIGNAL IS OFFSET BY ~50 mV
DUE TO ONLY ONE BIASING TERMINATION BEING USED**

SW2_005_

ULTRA-2 MULTIMODE BACKPLANE SYSTEM WITH NO EXPANDER



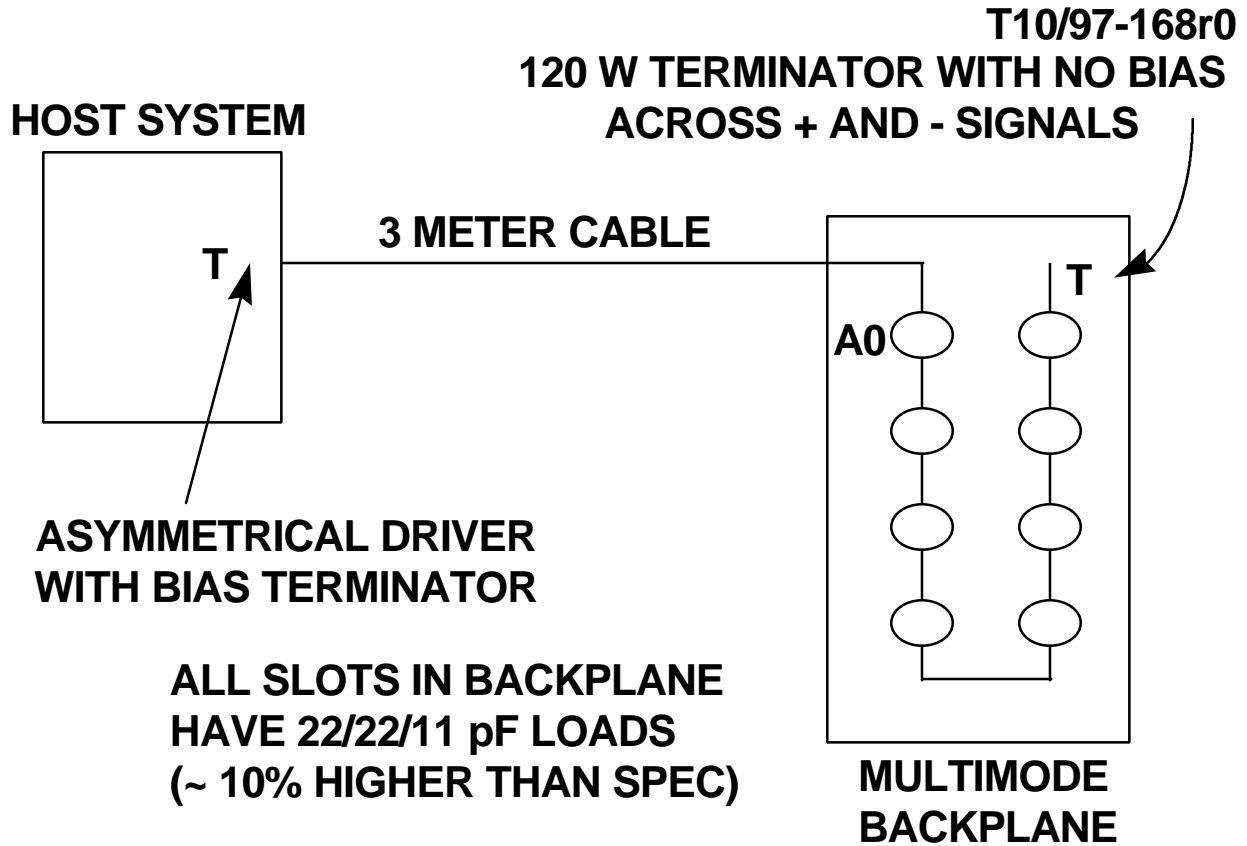
**(SHOULD USE EXPANDER ON BACKPLANE FOR THIS CONFIG)
 DATA AT A0, FAST 40 RATES, WORST CASE DATA PATTERN**



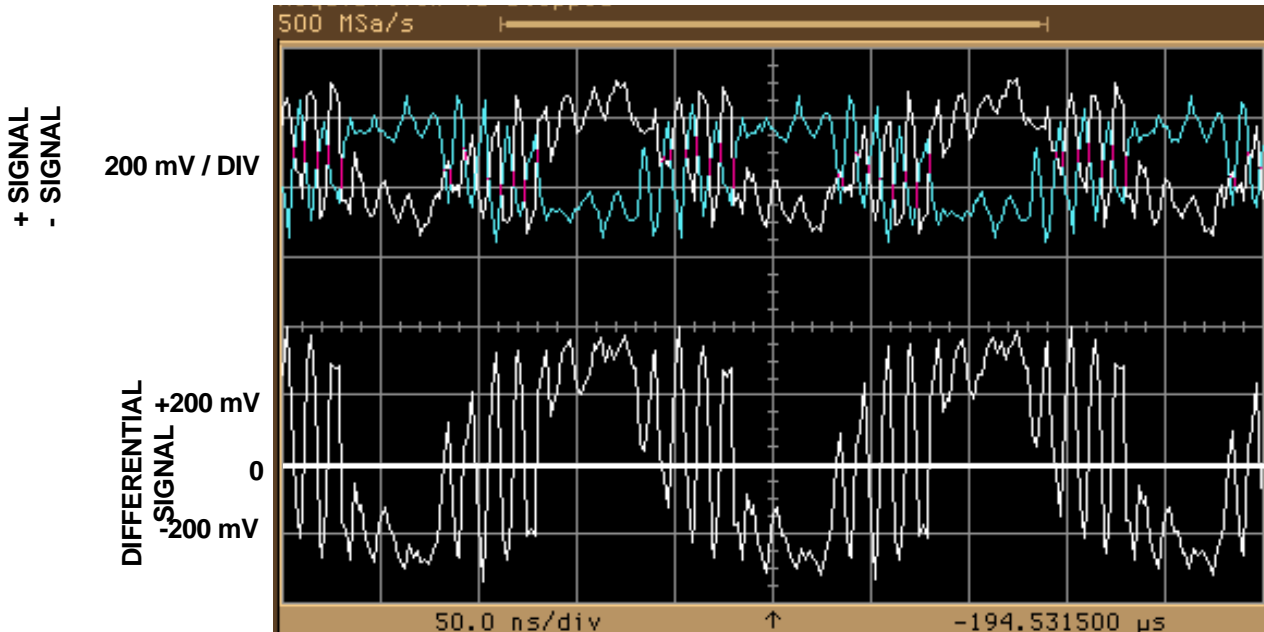
NOTE: DIFFERENTIAL SIGNAL IS OFFSET BY ~50 mV DUE TO ONLY ONE BIASING TERMINATION BEING USED

SW2_0012

ULTRA-3 MULTIMODE BACKPLANE SYSTEM WITH NO EXPANDER



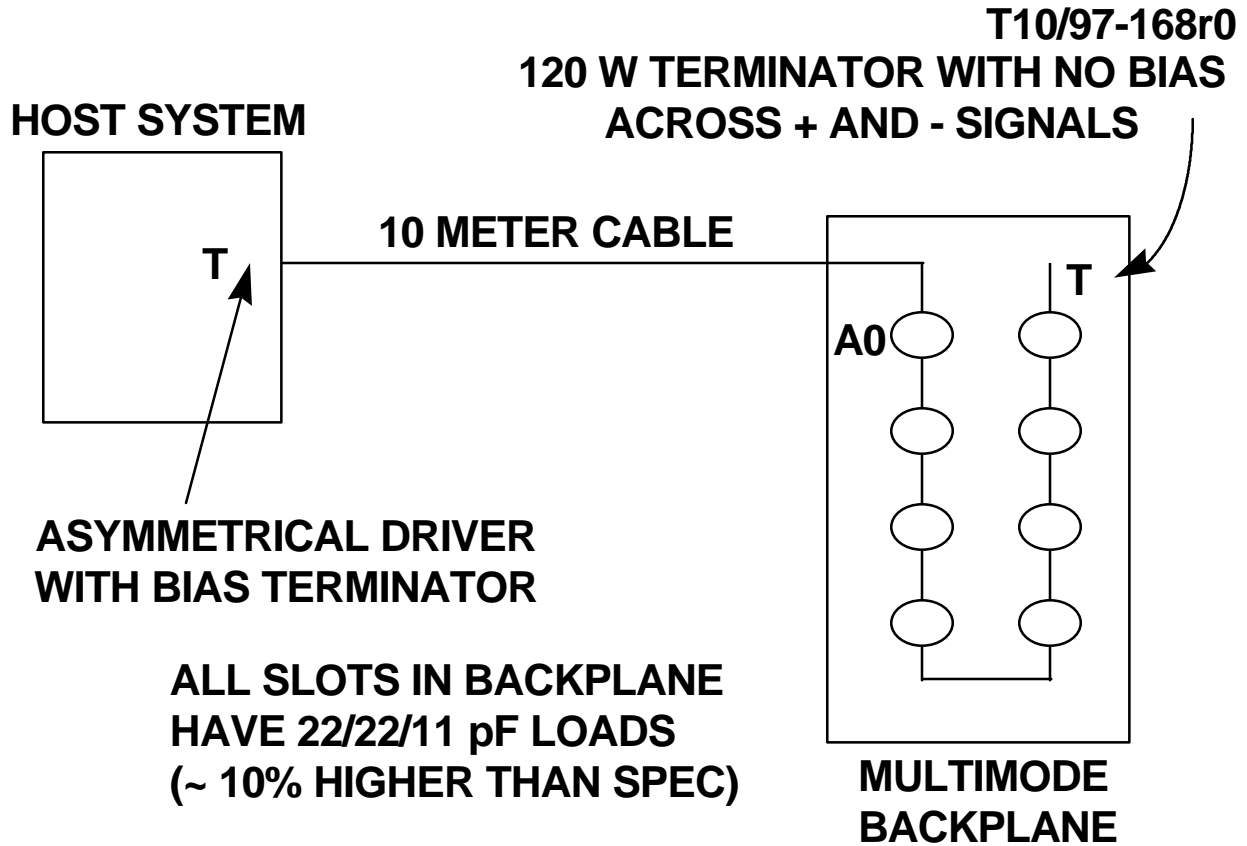
**(MUST USE EXPANDER ON BACKPLANE FOR THIS CONFIG)
DATA AT A0, FAST 80 RATES, WORST CASE DATA PATTERN**



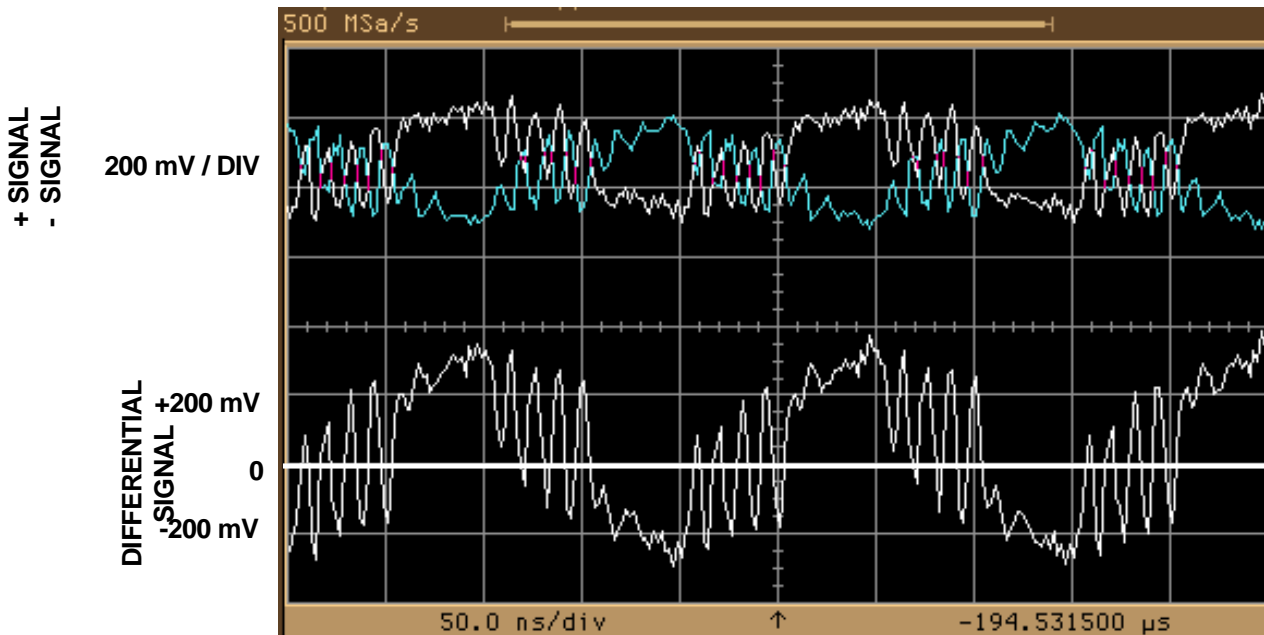
**NOTE: DIFFERENTIAL SIGNAL IS OFFSET BY ~50 mV
DUE TO ONLY ONE BIASING TERMINATION BEING USED**

SW2_0023

ULTRA-3 MULTIMODE BACKPLANE SYSTEM WITH NO EXPANDER



**(MUST USE EXPANDER ON BACKPLANE FOR THIS CONFIG)
DATA AT A0, FAST 80 RATES, WORST CASE DATA PATTERN**



**NOTE: DIFFERENTIAL SIGNAL IS OFFSET BY ~50 mV
DUE TO ONLY ONE BIASING TERMINATION BEING USED**

SW2_0021