

FE-ASIC V4 control bits

| Test Pulse | Baseline | Gain | Peaking time | Output coupling | Output buffer |
|------------|------------|----------------|---------------|--------------------|------------------|
| 0 = OFF | 0 = 900 mV | 00 = 4.7 mV/fC | 10 = 0.5 usec | 0 = DC | 0 = OFF |
| 1 = ON | 1 = 200 mV | 10 = 7.8 mV/fC | 00 = 1 usec | 1 = AC (don't use) | 1 = ON (typical) |
| | | 01 = 14 mV/fC | 11 = 2 usec | | |
| | | 11 = 25 mV/fC | 01 = 3 usec | | |

Just read across the table left to right to figure out the bits

For example: typical settings in a TPC and with external test pulse:

Test Pulse = ON, Baseline = 900 mV, Gain = 14 mV/fC, Peaking = 2 usec

Gives bits: 1001 1101 which is hex: 9D

| Binary | HEX |
|--------|-----|
| "0000" | 0 |
| "0001" | 1 |
| "0010" | 2 |
| "0011" | 3 |
| "0100" | 4 |
| "0101" | 5 |
| "0110" | 6 |
| "0111" | 7 |
| "1000" | 8 |
| "1001" | 9 |
| "1010" | A |
| "1011" | B |
| "1100" | C |
| "1101" | D |
| "1110" | E |
| "1111" | F |