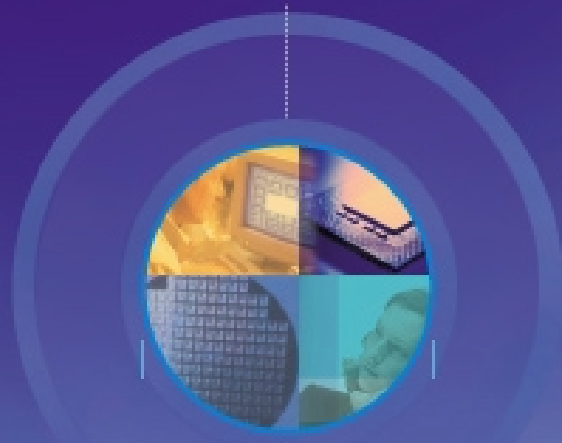




T e c h n o l o g y t o t h e C o r e

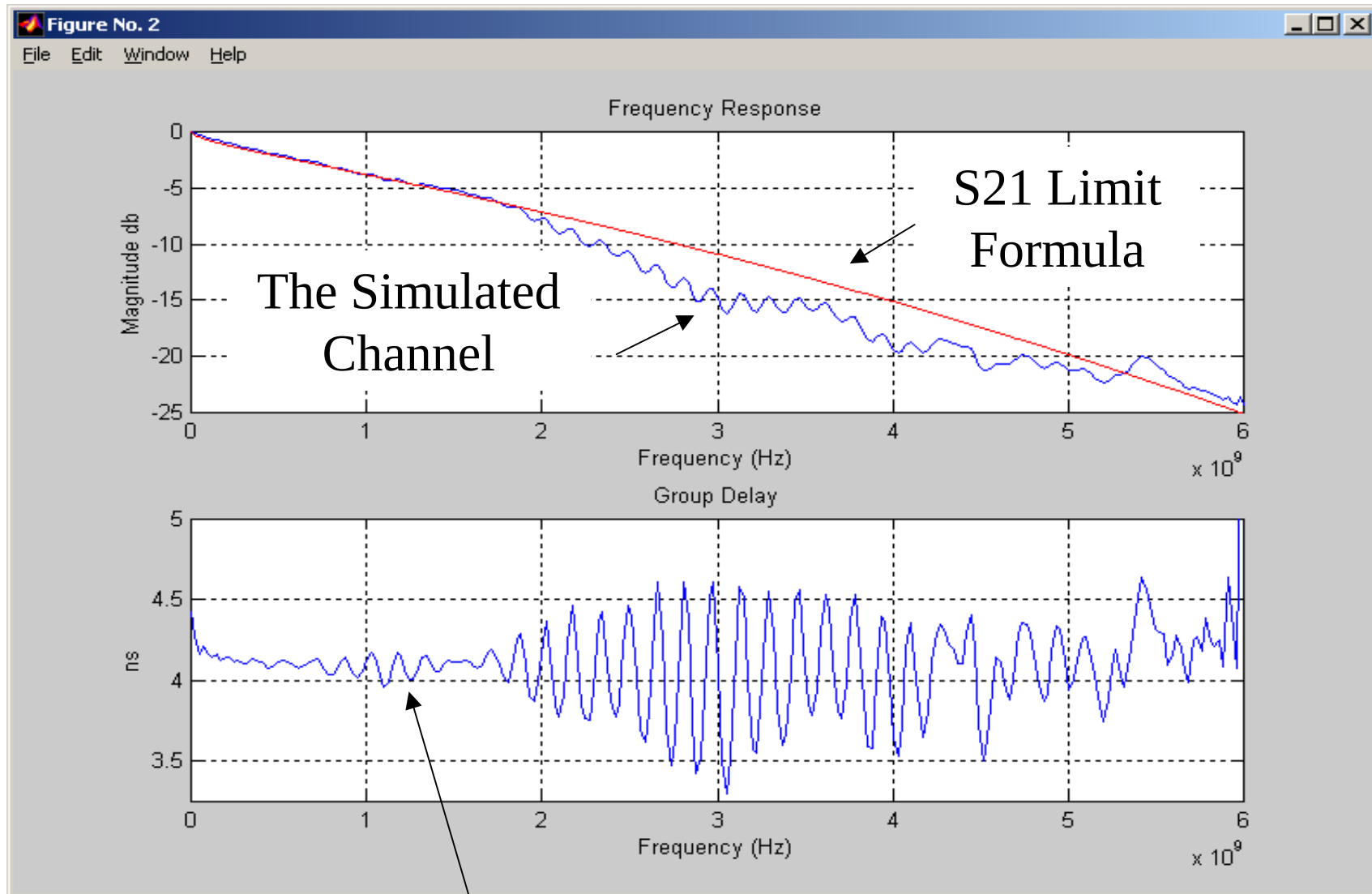
XAUI Compliance Channel Simulation Results

February 8th 2001

Compliance Channel Simulation

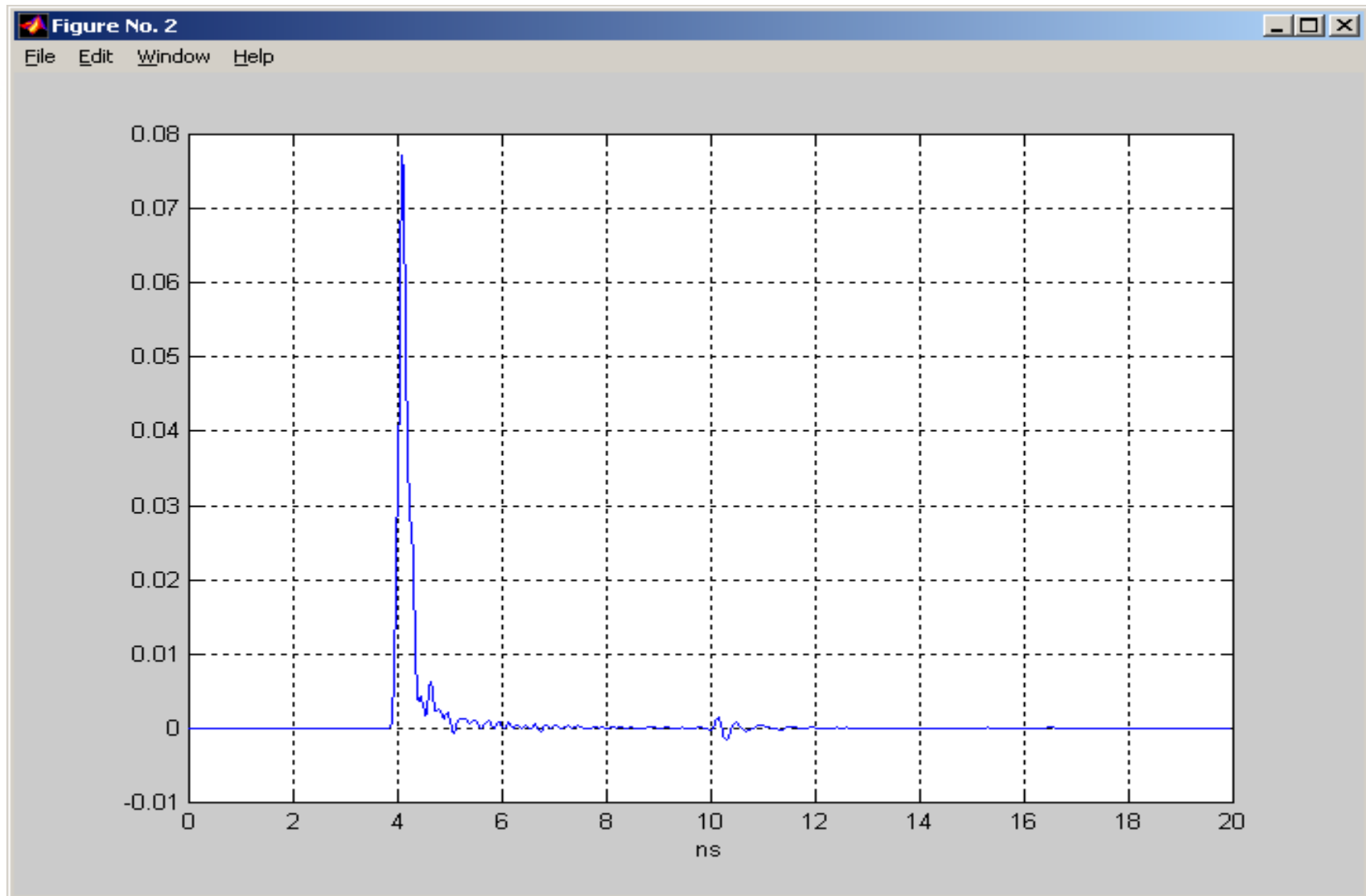
- Channel was calculated based on the S21 limit formula:
$$S21 = -20 \cdot \log_{10}(\exp(1)) \cdot [a1 \cdot (f.^{0.5}) + a2 \cdot f + a3 \cdot (f.^2)] \text{ Db}$$
- Where: $a1 = 6.5e-6$, $a2 = 2.0e-10$, $a3 = 3.3e-20$
- Real phase data was taken from the previous suggested, compliance channel (presented at Irvine) which include 2 connectors and ~22" FR4 (assuming 180ps / inch propagation delay).
- The result impulse response was slightly modified to overcome some calculations mismatches.
- The Mysticom ISI Killer Pattern was used as the transmitted data.

Frequency Response & Group Delay

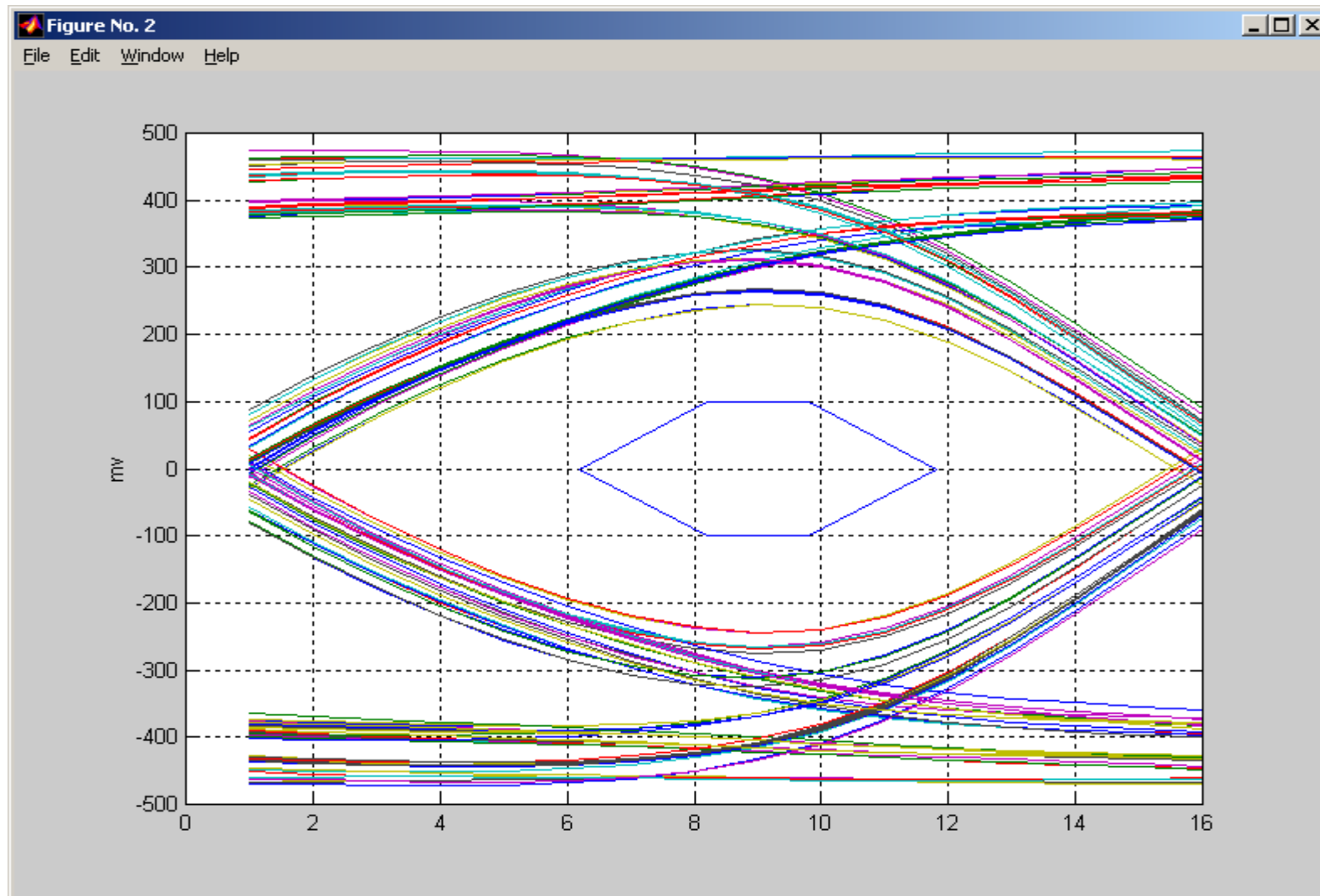


200ps p-p Group Delay Variation below 1.56 GHz

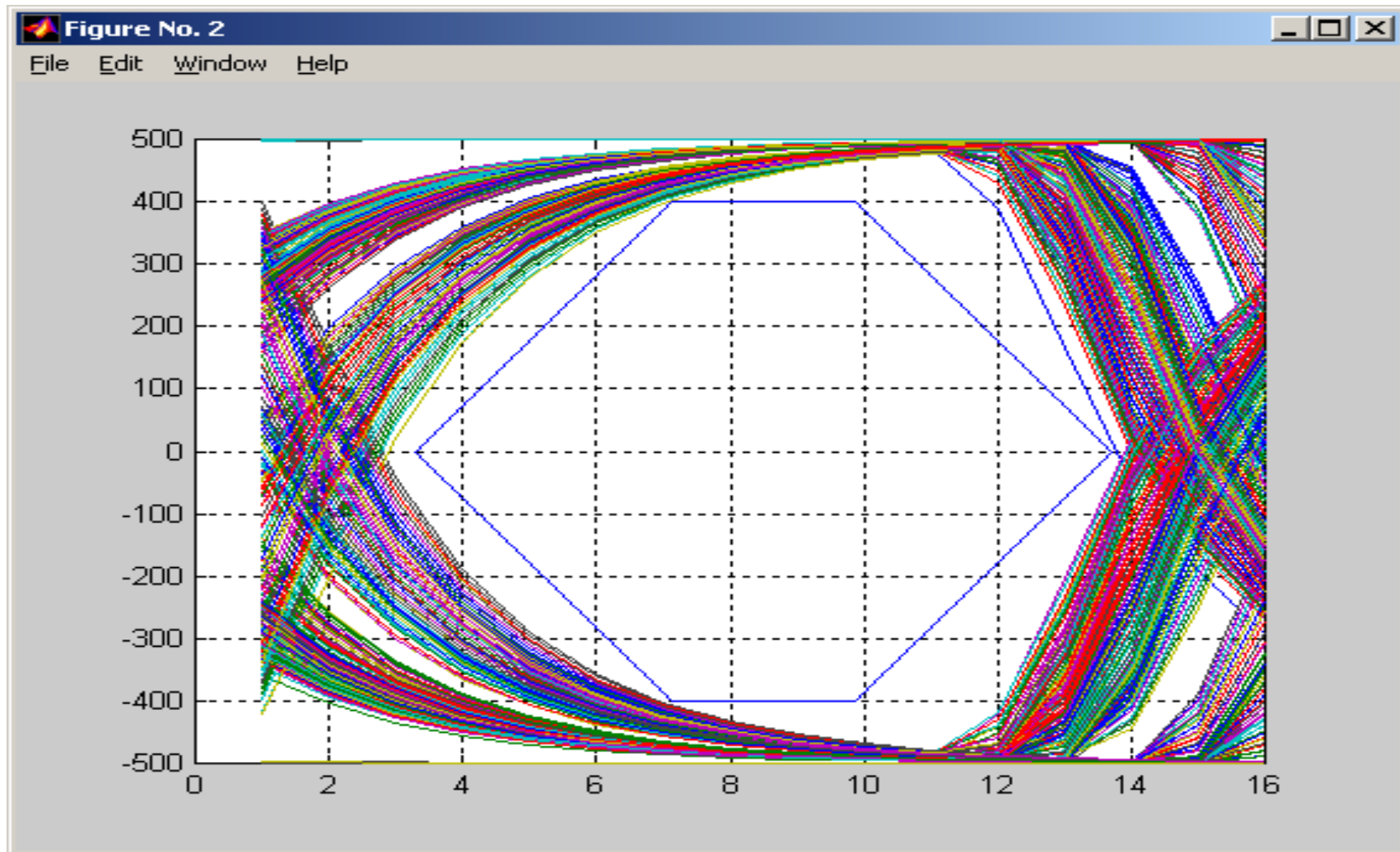
Channel Impulse Response



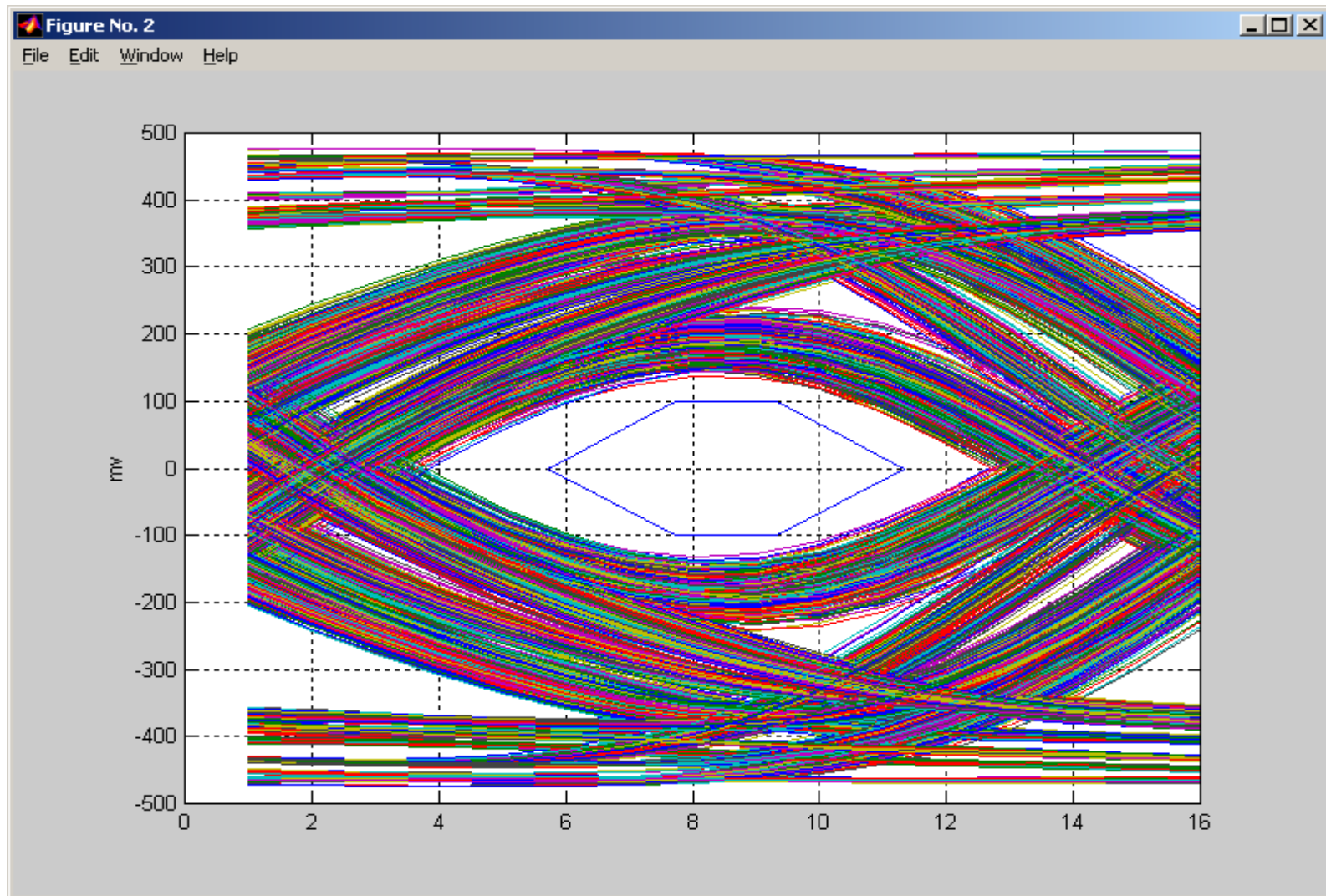
RX Eye With Out Appling Jitter



TX Eye: Applying 0.17 HF DJ + 0.18 RJ



The Results RX Eye



Additional 5Db Loss Caused By The Transmitted Jitter

