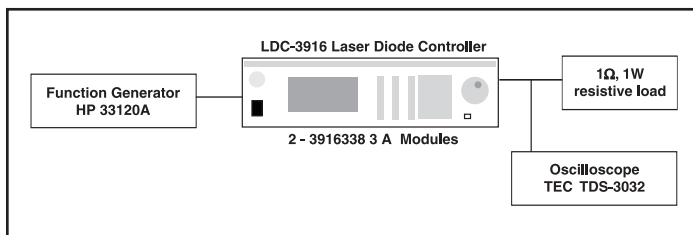


Large-Signal Frequency Response of the 3916338 Current Source Module

PURPOSE

This ILX Lightwave Technical Note presents the bandwidth performance of the LDC-3916338 Module when applying large-signal modulation.

MEASUREMENT SETUP



PROCEDURE

The test set-up measured the modulation response of two separate modules at three different output levels - 1.0 A p-p, 2.0 A p-p, and 3.0 A p-p. The equipment was connected as shown in Fig. 1 with the LDC-3916338 modules operating in High-Bandwidth mode. For each output level the DC output current from the LDC-3916338 were set to 50% of the peak current level. The modulation input voltage on the function generator was adjusted to achieve 100% modulation depth.

The resistive load was connected via a standard CC305S Unterminated Interconnect Cable. Output voltage measurements were made across the 1Ω resistor using the oscilloscope.

SUMMARY

The test procedure above was repeated for each module in each range. Figures 1 - 3 show the large-signal frequency response of the LDC-3916338 modules. In all test conditions the 3 dB point is no lower than the specified 600 kHz.

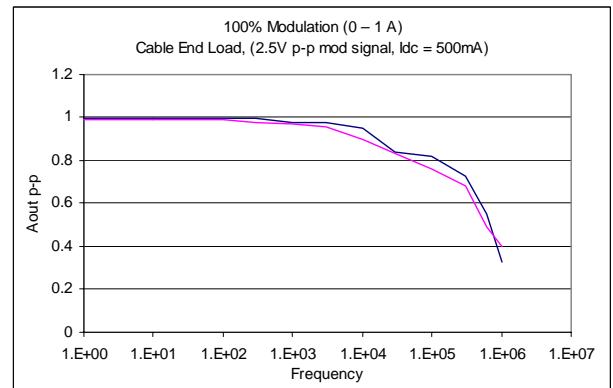


Figure 1. 1.0 A p-p Modulation

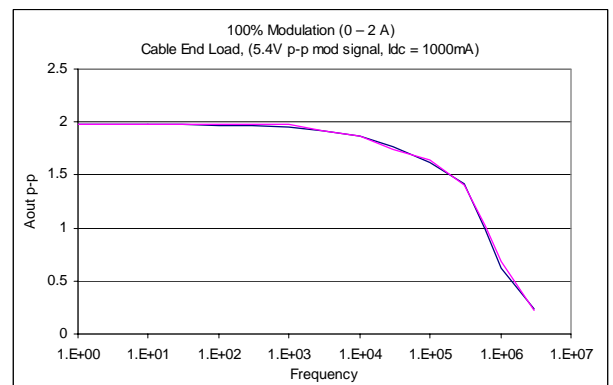


Figure 2. 2.0 A p-p Modulation

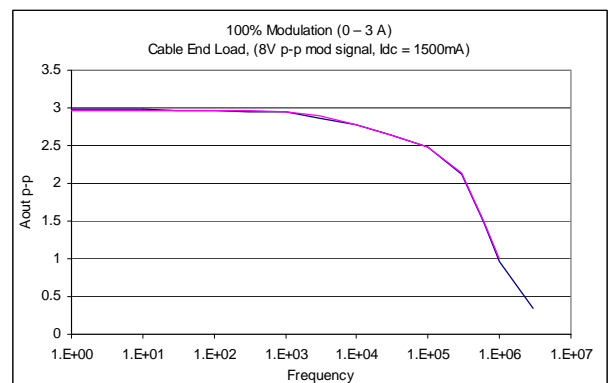


Figure 3. 3.0 A p-p Modulation