

## APPLICATION BRIEFS

**HFDN 44.0** 

SHORT AND CONCISE DESIGN NOTES FOR FIBER/HF APPLICATIONS

## INCREASE THE REACH OF HDMI AND DVI CABLES WITH THE MAX3815 TMDS EQUALIZER AND MAX3816A DDC EXTENDER

The MAX3815 TMDS® cable equalizer and the MAX3816A DDC extender increase the usable length of HDMI™ and DVI™ cabels. MAX3816A DDC extender The MAX3815 compensates

TMDS pair losses up to 40dB at 825MHz. It operates from 250Mbps to 1.65Gbps. The compensates up to 3000pF of

cable capacitance. It operates up to 100kHz clock rate. The MAX3815 and MAX3816A form a single display-side solution.

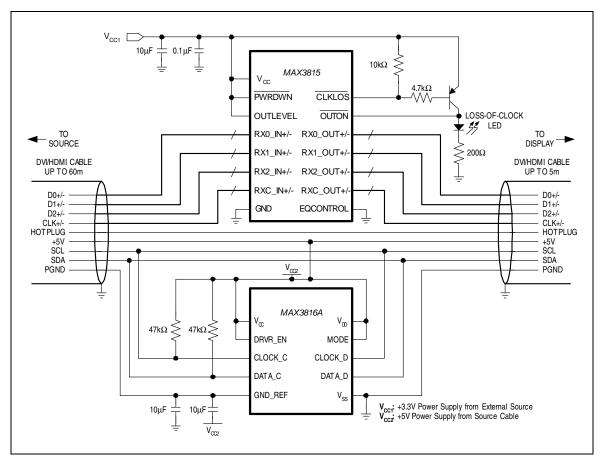


Figure 1. Typical Application Circuit for a Cable Extender Box or an End-of-Cable Application

## MAX3815 Features

## MAX3816A Features

- Extends TMDS Interface Length: 0 to 50 Meters Over 24 AWG 0 to 36 Meters Over 28 AWG 0 to 30 Meters Over 30 AWG
- Compatible with SDTV & HDTV Resolutions 480i, 480p, 720p, 1080i, and 1080p
- Compatible with PC resolutions from VGA (640x480) to WUXGA (1920x1200)
- DDC 2-Wire Extension up to 60 Meters at 100kbps for both Clock and Data Channels
- Single-Sided Solution Requires Only One **MAX3816A**
- Compensates for Cable Capacitance, 0pF to 3000pF Guaranteed, or 0pF to 5000pF Typical
- Includes User-Selectable Display-side isolation from Cable-side Bus