



## LVDS 4K TCON w/ Scaler

### 1 General Description

NCS8807 is an LVDS 4K TCON with advanced scaling function. It takes LVDS input signal from the TV SoC, scales it up to 4K resolution, and drives the 4K panel. By combining the 4K scaling and TCON functions into a single chip, NCS8807 enables the lowest cost solution for 4K TVs. Thanks to our proprietary scaling algorithm, NCS8807 provides high picture quality which is close to the current 4K TV solutions. NCS8807 also support mainstream HD(720p) to FHD(1080p) scaling application.

### 2 Features

#### mini-LVDS Output

1/2/4-port 3/6-pair mini-LVDS interface  
Up to 4K (3840\*2160) supported  
Port and polarity swap supported  
Adjustable gate control timing

#### LVDS Input

Single/Dual-channel 6/8bit LVDS interface  
400Mbps to 1Gbps per data pair  
Built-in termination  
Channel and polarity swap supported

#### Scaler

High-order high-quality scaling engine

#### Reference Clock

Any freq. between 19MHz and 100MHz

Crystal or single-ended clock input  
Built-in 5000ppm SSC generator

#### Misc

I<sup>2</sup>C for chip configuration  
Built-in video test pattern

#### Power

1.2V core supply  
2.5V or 3.3V IO supply  
Power consumption ~ 400mW @ 4K

#### Package

LQFP-128 (14mm x 14mm) package  
RoHS Compliant

**Sample available now**

### 3 Block Diagram

