New Wolfson S/PDIF transceivers offer exceptional jitter suppression in the audio band.

The WM8804 and WM8805 are high performance solutions for S/PDIF data recovery, routing and data transfer.

Simple and flexible to use, the devices deliver exceptional S/PDIF functionality based on Wolfson’s proprietary PLL technology. The WM8804 and WM8805 reduce the impact of a range of problems caused by jitter – one of the most common and serious issues in S/PDIF systems.

As an interconnection standard, designers and users have no control over the quality of the S/PDIF inputs. The unique Wolfson technology allows recovery of highly degraded input data and attenuates the unwanted jitter.

Added features including a ‘with flags’ mode for enhanced status reporting and GPIO functionality make these parts both flexible and extremely easy to use.

The WM8805 is an 8 input, 1 output version. The WM8804 is a 1 input, 1 output version.
HIGH PERFORMANCE PLL
With an intrinsic period jitter of 50ps RMS, unlike many transceivers, the WM8804 and WM8805 contribute a negligible level of jitter to the system.

REMOVAL AND SUPPRESSION OF EXISTING JITTER
The WM8804 and WM8805 are capable of suppressing pre-existing jitter at frequencies above 100Hz. Most competitive S/PDIF transceivers only act above 10kHz, with no effect on the low and medium frequencies which have the greatest impact on audio quality. The Wolfson PLL technology enables the WM8804 and WM8805 to lock onto and recover the data and timing from poor quality input signals, allowing the transceivers to accept S/PDIF from any source, even if the input signal is severely degraded.

MASTER CLOCK GENERATION
The PLL can be used to synthesise crystal derived clock signals, without the requirement for any external filter, and can operate as a high quality master timing source for the audio system, reducing system cost whilst guaranteeing excellent performance.