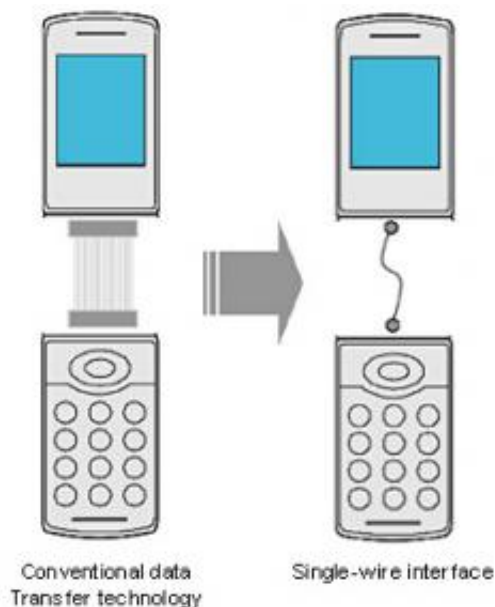


# Sony unveils 'Single Wire Interface Technology'

August 20 2010, by John Messina

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Sony aims to improve design flexibility, reliability and durability for mobile devices with movable mechanisms. Credit: Sony Corp.

(PhysOrg.com) -- With Sony's newly-developed 'single wire interface technology' bi-directional transmission of multiple signals, including video, audio and control signals can propagate over a single copper cable. DC power is also sent along the same cable by using Sony's unique encoding technology with DC balance.

Mobile devices are growing at an alarming rate and becoming more

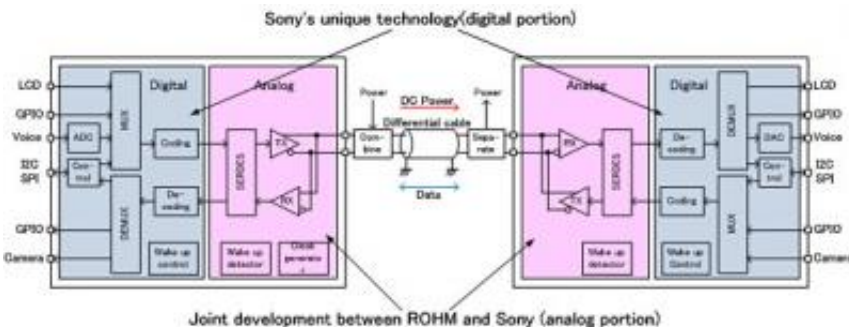
sophisticated in advance functionality. This has resulted in the use of additional wiring connections that's required to transmit larger volumes of data within devices.

[Sony](#) has teamed up with ROHM Co., Ltd a company that implements peripheral technologies. Sony will grant ROHM Co. a license for the IP of the digital portion of this newly-developed technology in order to advance the development of a single [chip](#) which includes both the analog and digital portions.

## Sony's R&D Highlights

With Sony's unique time division duplex and multiplex system, data packets which include video, audio, and control signals can be transmitted over a single cable. Sony has also enabled bi-directional transmission of different signals by incorporating a method that retains individual synchronization.

Higher transmission speeds, up to 940 Mbps, can be achieved by using a unique multi-level encoding. Sony's newly developed hardware combines a digital portion that performs multi-level encoding; an analog portion that sends and receives signals, and a third portion that combines signals with dc power or separates them from dc power. This is illustrated in the diagram below.



Transceiver chip will provide multi-level encoding and transmission speeds up to 940 Mbps. Credit: Sony Corp.

In order to commercialize this new technology as soon as possible, Sony prototyped a chip for the analog part with the joint effort of Rohm Co Ltd; the digital part was exclusively developed by Sony. Rohm intends to combine the analog part and the digital part (license by Sony) into a chip and sell it as a transceiver chip.

**More information:** [Sony R&D](#)

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