



Features

- » Improves electromagnetic spectrum efficiency
- » Enables single-channel full-duplex communication
- » Single-antenna solution
- » Adaptive
- » Ideal for system developers of wireless radio networks

Applications

- » Any wireless radio network

Description

The PSI-8650 STARbox™ RF front-end enables radio and wireless network developers the capability to simultaneously transmit and receive (STAR or STR) on the same-channel over a single-antenna.

Also referred to as single-channel, full-duplex communications, the PSI-8650 front-end significantly reduces the self-interference of the transmit signal in the receive path allowing a radio to process remote receive signals on the same frequency. This patented and patent pending equipment can effectively double the spectral efficiency of a radio saving enormously valuable electromagnetic spectrum.

The PSI-8650 STARbox™ is a single-antenna solution eliminating the need for separate or multiple antennas to provide added isolation while still being compatible with MIMO antenna architectures if desired. Changes in antenna impedance due to environmental conditions are adaptively compensated for in the PSI-8600 to ensure optimum transmit-to-receive (T/R) isolation is maintained.

Developed as analog RF_{in} and RF_{out} add-on between an existing radio and its antenna, the PSI-8650 STARbox™ typically provides enough T/R (50-70dB) front-end isolation so digital signal processing inside the radio can effectively remove the residual transmit signal if required. Alternatively, for customer specific radio applications, PSI can modify the PSI-8650 equipment to include digital signal processing that provides a baseband output signal with improved T/R isolation well beyond 100dB.

Models of the PSI-8650 are currently available in frequency ranges of 3 - 30 MHz, 30 - 500 MHz, and 500 MHz - 2.5 GHz. Please contact PSI for other frequency band options, additional information and to discuss specific application requirements at psi.sales@photonicsinc.com or +1-978-670-4990.

PHOTONIC SYSTEMS INC.

900 Middlesex Turnpike
Building 5
Billerica, MA 01821
USA

P: +1-978-670-4990
F: +1-978-670-2510

E: psi.sales@photonicsinc.com
www.photonicsinc.com

