RF5219
Satellite Channel Stacking Switch (CSS)

Enabling Connected Home Entertainment™

PRODUCT DESCRIPTION

The RF5219 is the latest Entropic CSS solution, offering up to 40% lower power consumption from previous generations. The IC is designed to support up to 8 stacked channels on a single cable using a single ASTRA recommended Set Top Box (STB). The RF5219 is a pin compatible replacement of the previous generation product, the RF5212.

The RF5219 can be used in two Digital Broadcast Solutions (DBS) applications.

Optimized configuration is integration in the Low-Noise Block (LNB) converter that is part of an Outdoor Electronics Unit (ODU) (typically integrated with an antenna on the roof).

The second configuration is integration in an RF channel stacking Multi-Switch that is deployed anywhere (outdoor or indoor) between the satellite antenna on the roof and the indoor set top boxes.
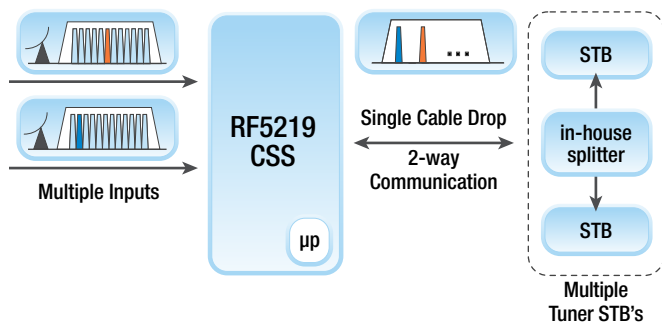
The RF5219's CSS technology is applicable to homes with multiple Set Top Box tuners (PVR Set Tops, or multiple Set Tops in a home) and to Multiple Dwelling Unit (MDU) applications. New total system solutions can be achieved by using the RF5219 with MDU redistribution technologies to support small apartment buildings.

APPLICATIONS
- DBS Low-noise Block Converters
- DBS Multi-Switches

TARGET BANDS
- Input range 950 MHz – 2150 MHz
- Output range 950 MHz – 2150 MHz

Ground-breaking new technology enables the delivery of up to 4 unique, individually selected channels down to a single cable drop.
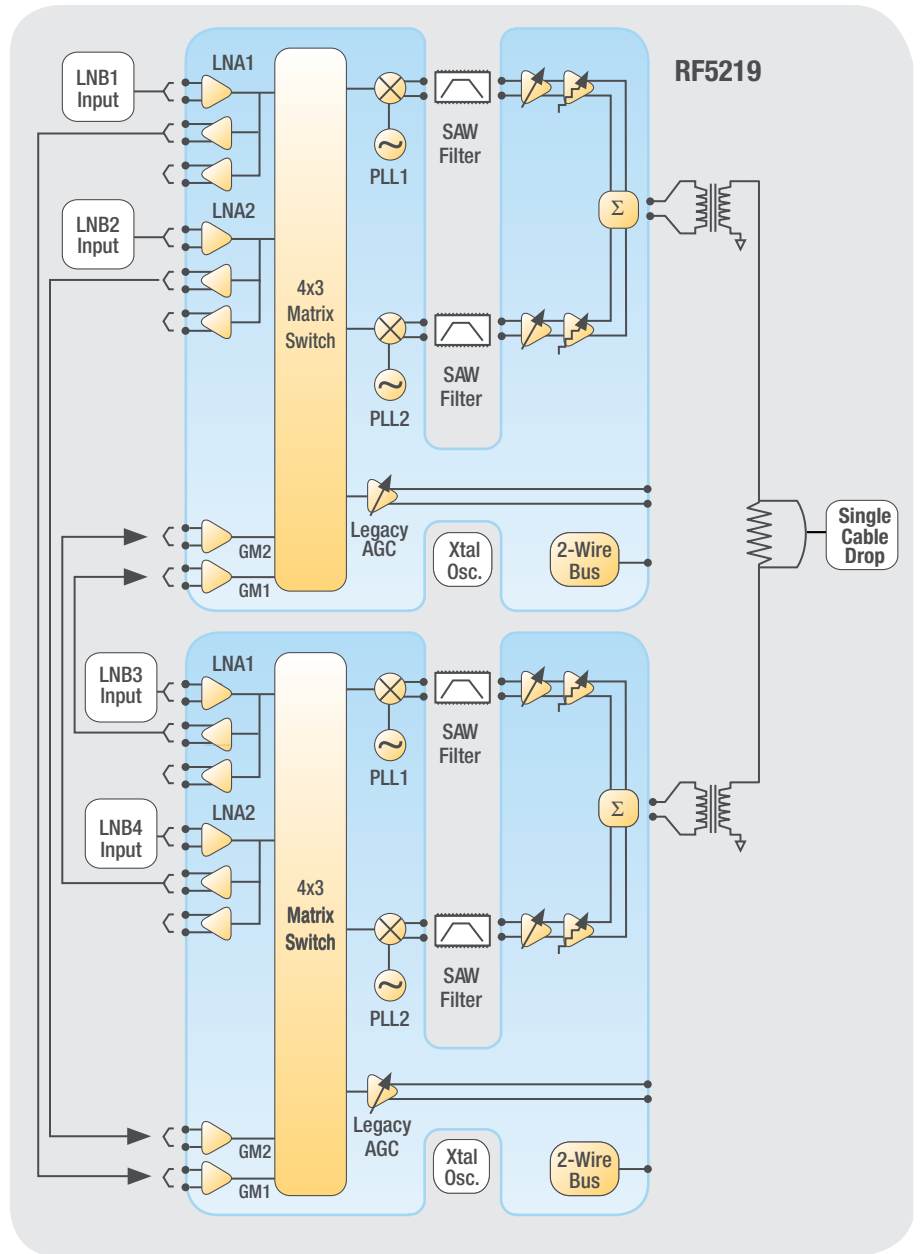
FEATURES
- 2 inputs and 2 channel outputs per IC
- Low power consumption
- Input range 950 MHz - 2150 MHz
  - o Single dedicated legacy port
  - o 4 Cascade outputs to support additional legacy ports
- Output range 950 MHz – 2150 MHz
- EZStack architecture supports up to 4 inputs and 8 output channels
- Low phase noise for supporting up to 16APSK modulation
- Low external component count
- High isolation ensures superior cross channel rejection
- Fully integrated LO, PLL and loop components
- Simple 2-wire control interface
- 8x8 mm^2 QFN 68-Pin package
- RoHS compliance

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EVALUATION BOARD

FUNCTIONAL BLOCK DIAGRAM

RF5219

LNB1 Input
LNB2 Input
LNA1
LNA2
4x3 Matrix Switch
PLL1
SAW Filter
PLL2
SAW Filter
Legacy AGC
GM2
GM1
Xtal Osc.
2-Wire Bus
Σ
Single Cable Drop

LNB3 Input
LNB4 Input
LNA1
LNA2
4x3 Matrix Switch
PLL1
SAW Filter
PLL2
SAW Filter
Legacy AGC
GM2
GM1
Xtal Osc.
2-Wire Bus
Σ

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ORDERING INFORMATION

Product	Part Number	EVK Description
RF5219	PCR-5219-0001	RF5219 CSS Evaluation Kit