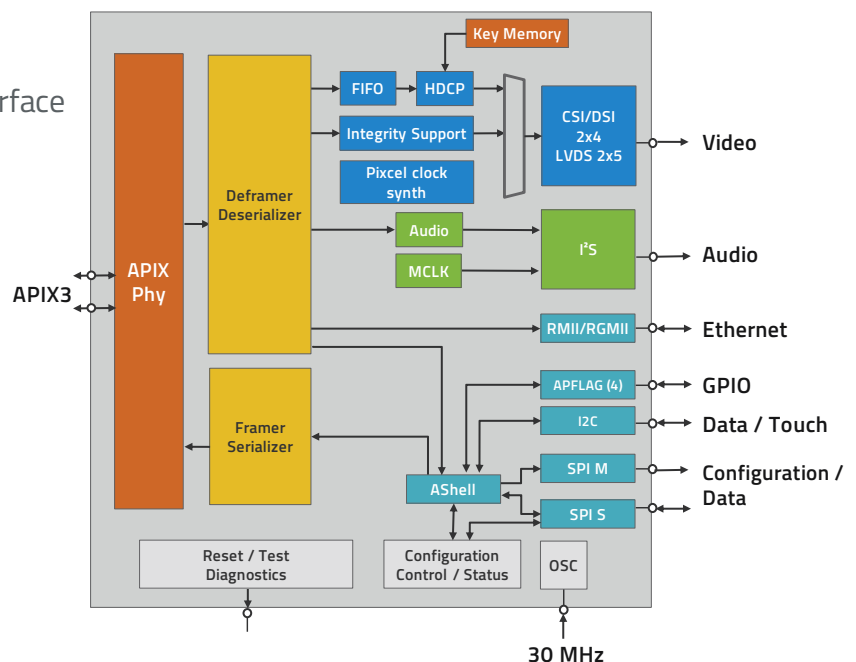


# INAP563R, INAP593R

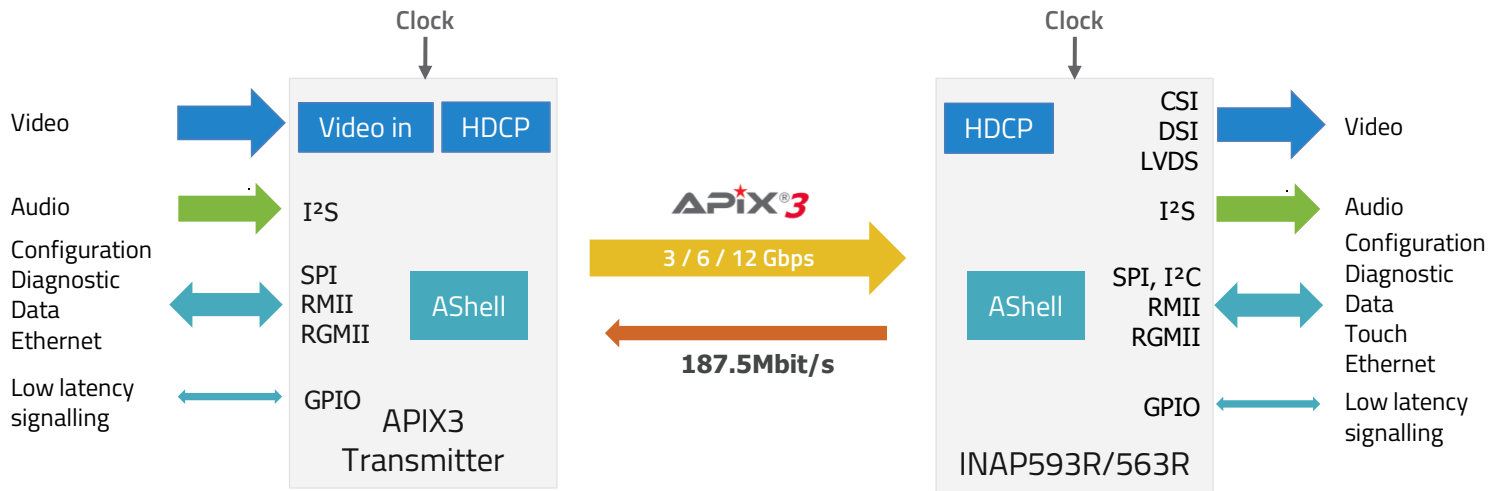
## APIX3 Receiver

### FEATURES

- Physical Layer
  - 6, 3 or 1.5 Gbps downstream
    - Support of 12 Gbps dual lane link
    - 6+6 Gbps, 3+3 Gbps, 1.5 + 1.5 Gbps
  - 187.5Mbps upstream
  - Automatic link training
- Supports STP, QSTP or Coax cables
- APIX2 compatible
- Single Video Channel
  - Uncompressed video transmission up to 3840x1080 30bit @60Hz
  - VESA DSC compressed video up to 3840x2160 24bit @60Hz (4K2K) over single lane
  - Supports 18/24 or 30-bit color depth
  - Video integrity support
- Dual combined DSI/CSI and LVDS video interface
  - DPHY 1.2 with up to 1.5 Gbps/lane
    - Combined 2x4 operation (odd/even)
  - Support for VESA DSC tunneling
  - 2x5-lane LVDS interface supports openLDI (JEIDA) and VESA format
  - Dual LVDS (odd/even) to support large videos
- HDCP 1.4 decryption engine (INAP593R)
- Embedded AShell protocol data protection layer
- Full-duplex communication channels for Data, Ethernet or GPIO
  - MII/RMII/RGMII interface
    - 10/100 Mbps support
  - I<sup>2</sup>C and SPI data interfaces
  - 4 GPIO Flags for protected signaling over AShell (APFLAG)
- I<sup>2</sup>S Audio interface
  - Supports 16/24/32 Bit word length
  - Supports up to 192kHz sampling
  - TDM support for up to 8 channels
- Diagnostic Features:
  - Built-in PRBS generator and checker
  - Continuous link monitoring



CONNECTIVITY FOR AUTOMOTIVE LIGHT & VISION



### TEMPERATURE QUALITY

- -40°C to +105°C
- AEC -Q100

### SERIALIZER

- INAP563T, INAP593T
- INAP565T, INAP595T
- INAP560T, INAP590T
- INAP375T
- Any APIX3 or APIX2 Transmitter

### APPLICATIONS

- Infotainment Systems
- Head Units
- Head Up Displays
- Multimedia Gateways
- Central Information Displays
- Instrument Clusters
- Rear-Seat Entertainment Systems
- Console Display

Part Number	Package	Pack Size	HDCP
INAP563RAQ-T	162 aQFN	176 / Tray	
INAP563RAQ-R2	162 aQFN	2000 / Reel	
INAP593RAQ-T	162 aQFN	176 / Tray	yes
INAP593RAQ-R2	162 aQFN	2000 / Reel	yes