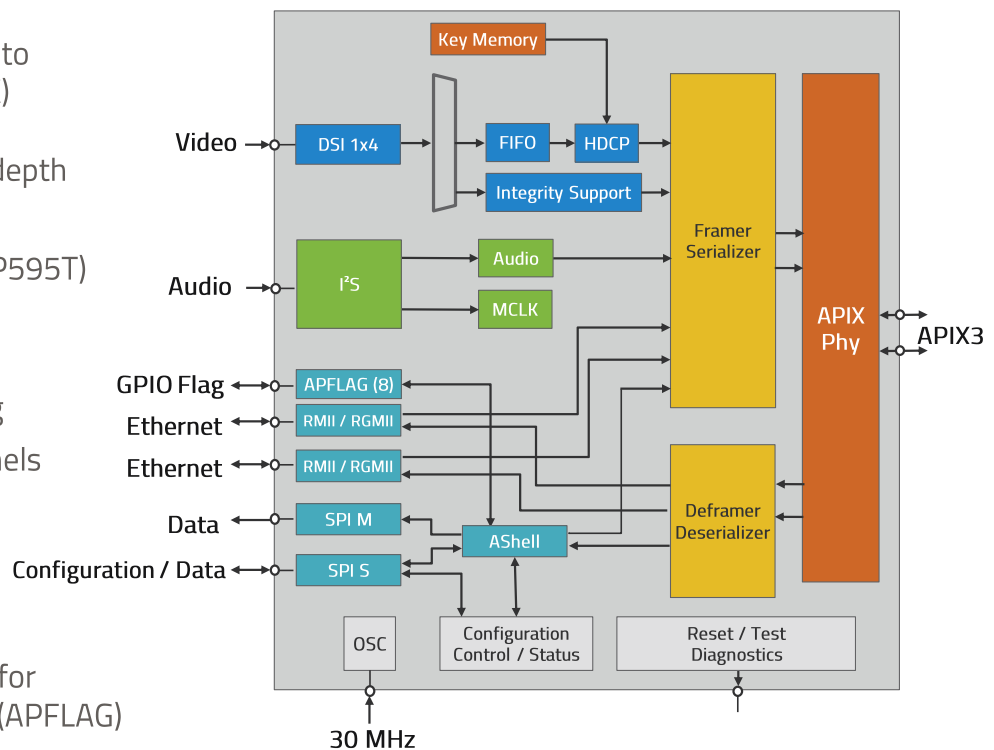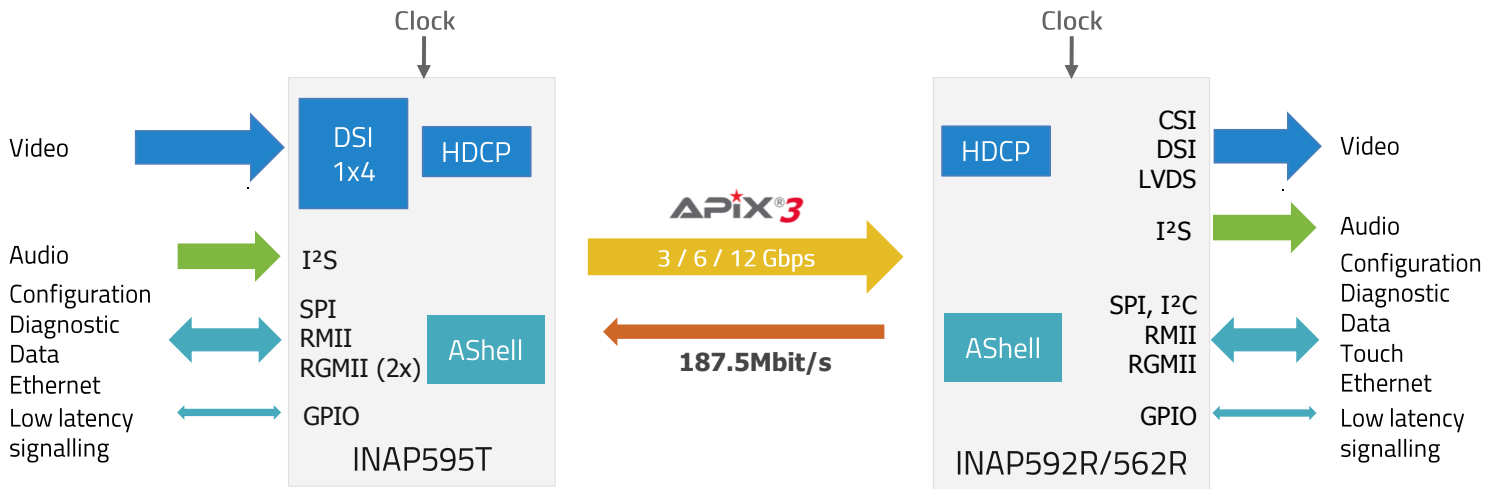# INAP565T, INAP595T

APIX3 Transmitter w. DSI video input

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 (Shielded Twisted Pair), QSTP or Coax cables

- Support to drive 2 receivers simultaneously

- Single Video Channel supports
  - 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

- HDCP 1.4 encryption engine (INAP595T)

- MIPI DSI 1.2 video interface (1x4)
  - DPHY 1.2 up to 1.5 Gbps/lane
  - Support for VESA DSC tunneling

- Full-duplex communication channels for Data, Ethernet or GPIO
  - 2 MII/RMII/RGMII interfaces
    - 10/100 Mbps support
  - SPI data interfaces
  - Up to 4 GPIO Flags per receiver for protected signaling over AShell (APFLAG)

- Embedded AShell protocol data protection layer

- I²S 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

- APIX2 compatible

APIX®3

TEMPERATURE QUALITY

- -40°C to +105°C
- AEC -Q100

DESERIALIZER

- INAP562R, INAP592R
- INAP375R, INAP395R
- Indigo 2 / Indigo 3 / Indigo 3L (Socionext)

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
INAP565TAQ-T	151 aQFN	176 / Tray	
INAP565TAQ-R2	151 aQFN	2000 / Reel	
INAP595TAQ-T	151 aQFN	176 / Tray	yes
INAP595TAQ-R2	151 aQFN	2000 / Reel	yes

CONNECTIVITY FOR AUTOMOTIVE LIGHT & VISION

inova
Semiconductors