

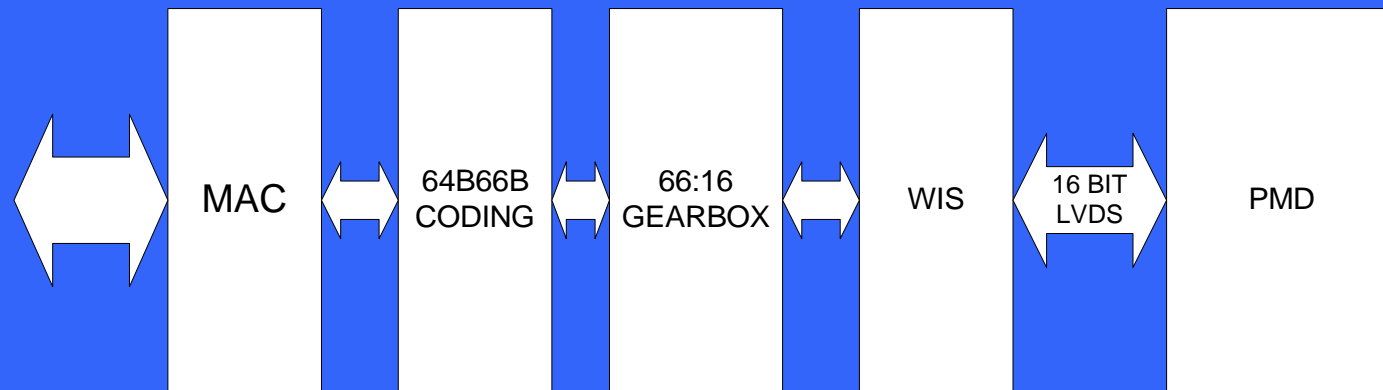
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**SUPI**

**A PROTOCOL FOR A SHORT REACH  
WANT PHY INTERFACE**

SUPI

# WAN Phy block diagram



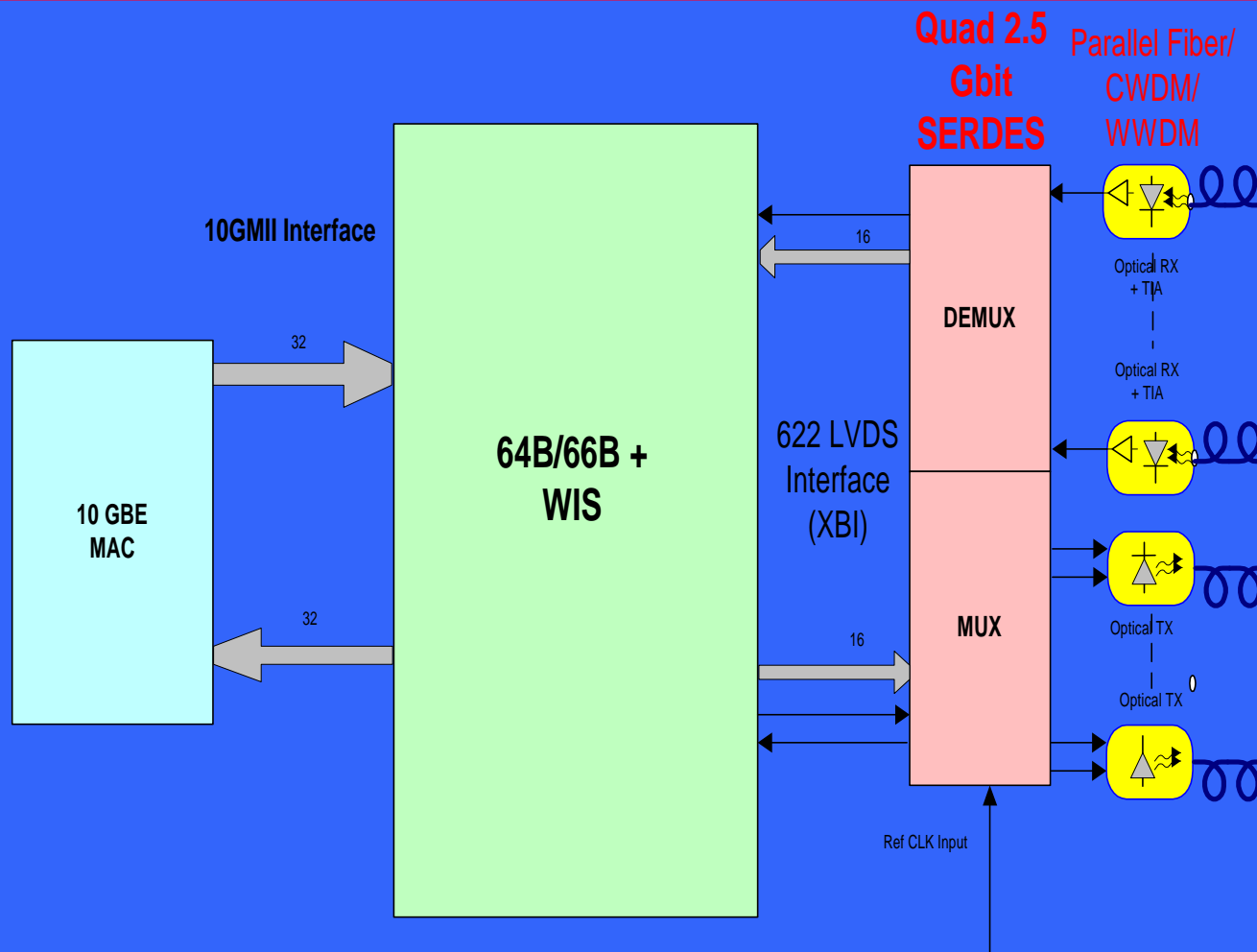
WAN Phy Architecture

# SUPI Protocol

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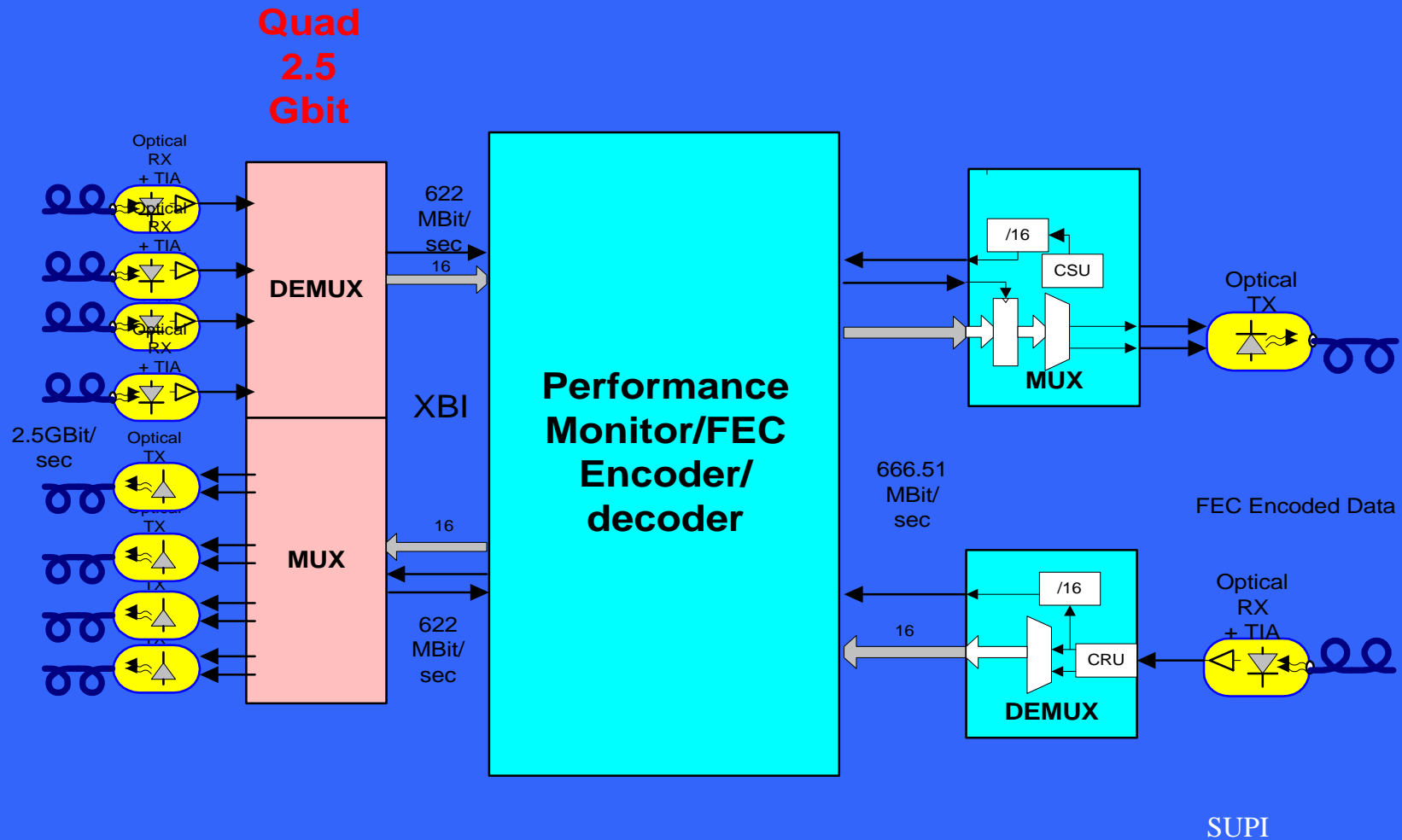
- **Maps scrambled 16x622 Mbps data into 4x2.5Gbps.**
- **Performs channel deskew using WAN Phy A1/A2 framing bytes**
- **Deinterleaves on 16 byte boundaries.**
- **Compatible with proposed OIF VSR protocol**
- **Protocol specified in OIF contribution OIF2000.074**
- **Optical components should be common between SUPI(2.5 Gbps) and 3.125 Gbps interface.**

# SUPI Interface

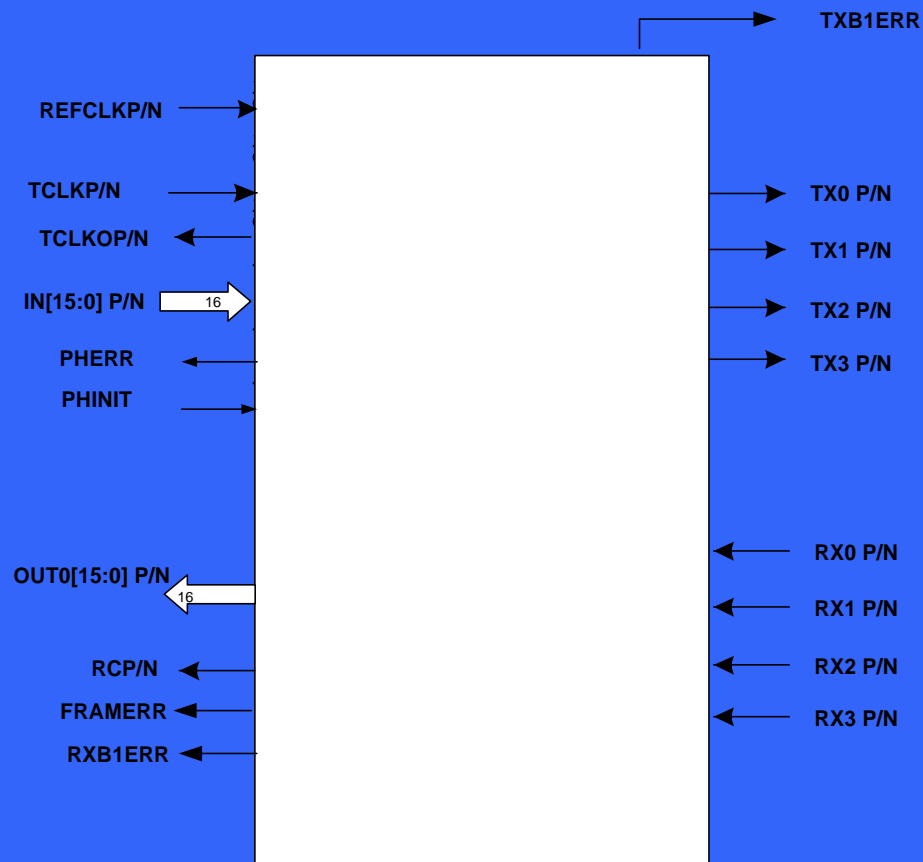


SUPI

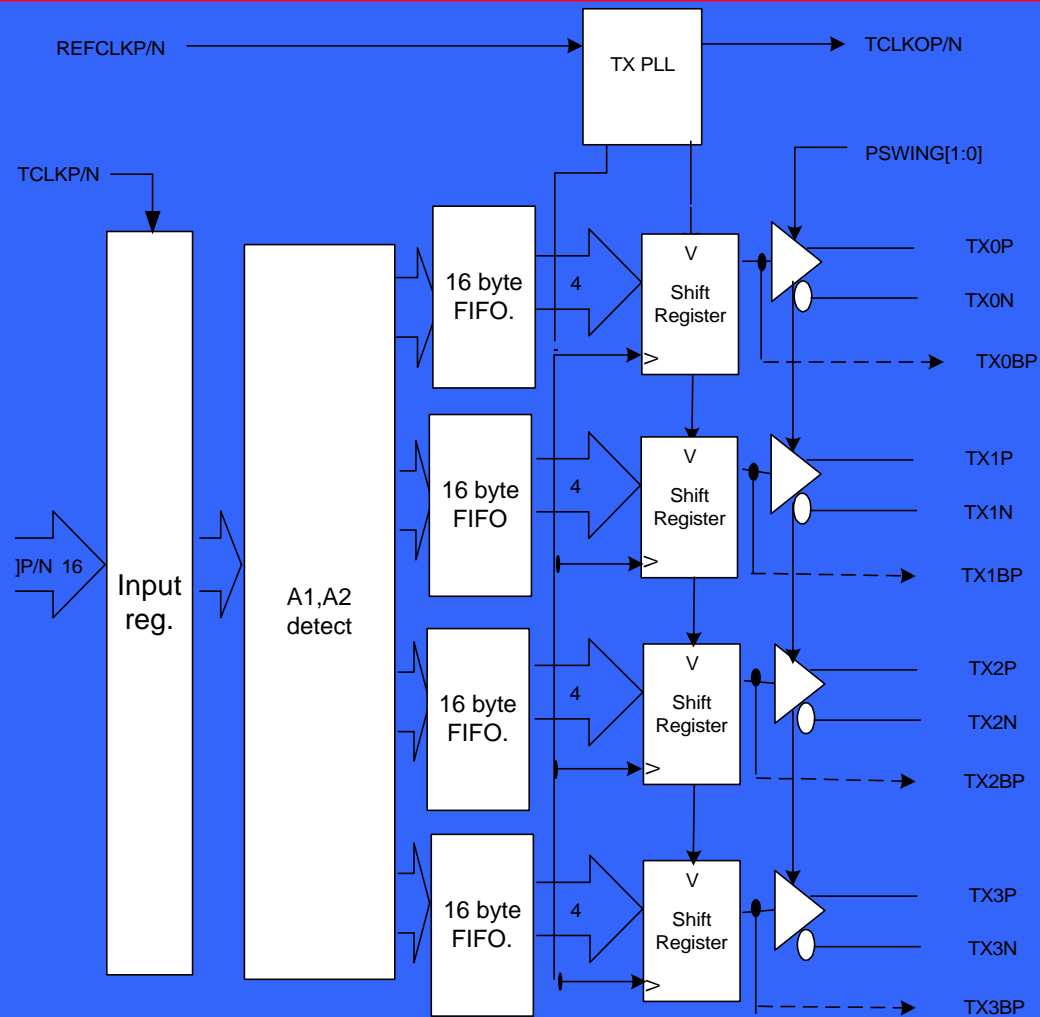
# 10 GBE WAN Phy to SONET OC192 WDM Transponder



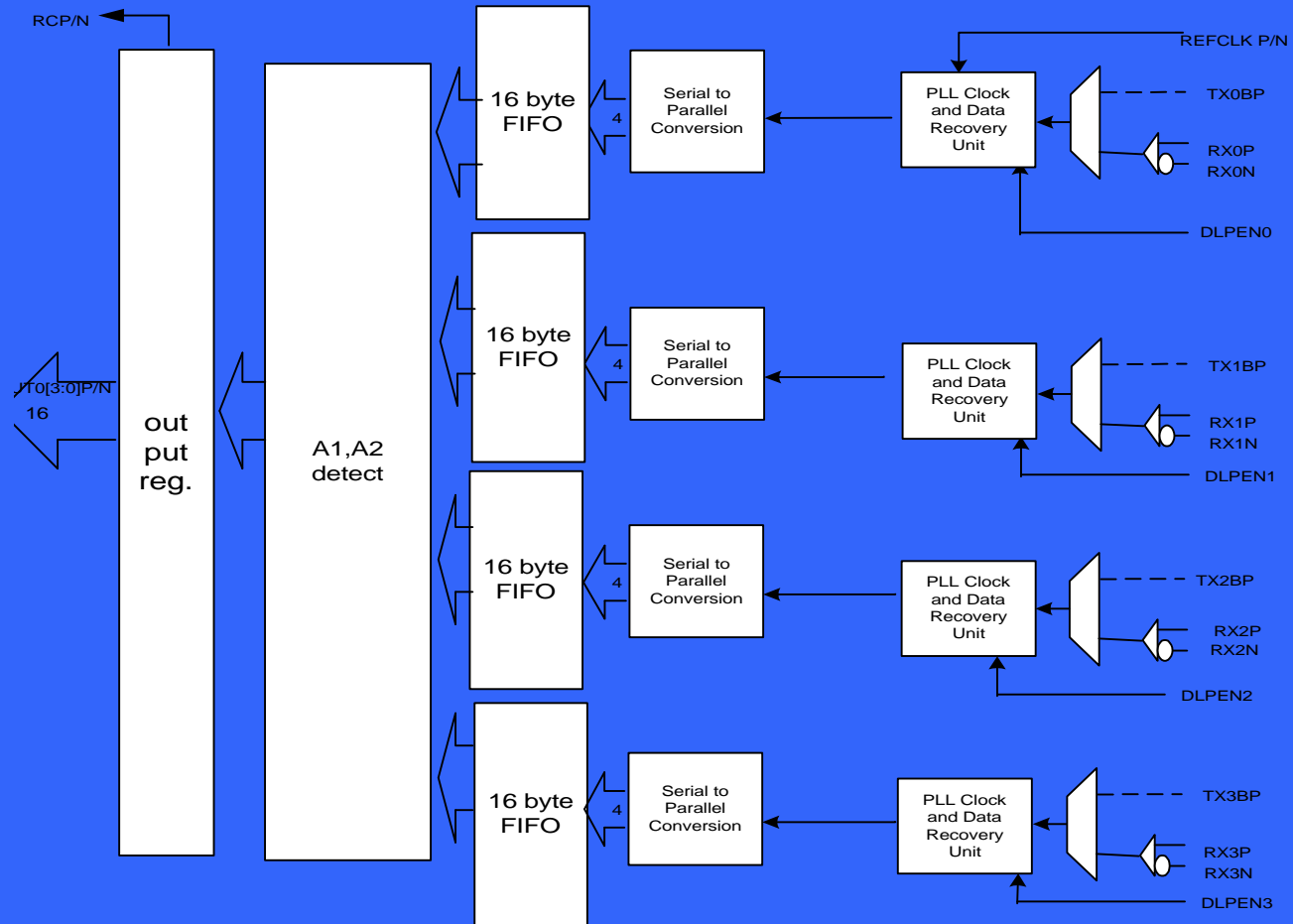
# VSR OC192 quad SERDES



# VSR OC192 TX section



# VSR OC192 RX section





# SUPI Conclusions

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- **Provides simple protocol for short reach WAN Phy interfaces**
- **Compatible with parallel fiber, CWDM and WWDM PMDs.**
- **Compatible with proposed OIF VSR OC192 interface.**
- **Compatible with propose XBI (622 LVDS) interface**
- **Allows reuse of LAN Phy optical components**