



# PHYTEC

## phyGATE<sup>®</sup>-Tauri Family

### Flexible and scalable gateway solutions in DIN rail housing

The phyGATE-Tauri-S,-L and -M gateways are ideal for new Industry 4.0 and Retro Fit solutions. They are ready for smart data analysis and efficient controlling of your machines.

Choose between systems with the high computing power of the i.MX 8M Mini (4x Arm<sup>®</sup> Cortex<sup>®</sup>-A53), the powerful but less expensive i.MX 93 (2x Cortex<sup>®</sup>-A55) or the low-budget solution with i.MX 6ULL (Cortex<sup>®</sup>-A7). Compatible expansion cards are available for all variants. Thanks to our standardized design, you can meet different performance requirements and convince your markets with tailor-made, cost-optimized offers. You can either design individual interface cards yourself or have them developed quickly and cost-effectively via our design service.



### Highlights


- Series-ready gateway for implementing your own application software
- OEM modifiable in terms of branding and delivery condition
- Expandable via DIN-rail foot contact (phyRAIL) and housing-internal expansion connector
- Galv. separated interfaces (RS-232, RS-485, CAN)
- miniPCIe slot option for radio modules (BT / WLAN / LTE) and SSD storage
- Prepared for security and update and device management

### Your advantages

- Price/performance optimization through three selectable systems: i.MX 6ULL, i.MX 93 or i.MX 8M Mini
- Individual expansion for your interface needs through standardized backplane bus
- Space-saving solution through on-board expansion
- Individual interface extensions at low costs
- Easy integration of your systems into cloud solutions through existing sample implementations
- Security for your customers through Secure Boot, Secure root file system and certificate management
- Long-term solution right from the start through current Linux/Yocto versions with long-term maintenance
- Update service for your customers through device management solutions from PHYTEC
- Future-proof through long-term maintenance and expansion
- Supplementary hardware and software solutions from our partners (LoRaWAN, data visualization, security, etc.)



**Module Configuration** | phyGATE-Tauri-S | phyGATE-Tauri-M | phyGATE-Tauri-L

<b>Module</b>	phyCORE-i.MX 6ULL	phyCORE-i.MX 93	phyCORE-i.MX 8M Mini
<b>Processor</b>	NXP i.MX 6ULL	NXP i.MX 93	NXP i.MX 8M Mini
<b>Core / Coprocessor</b>	Arm® Cortex®-A7	2x Arm® Cortex®-A55 / Cortex®-M33	4x Arm® Cortex®-A53 / Cortex®-M4
<b>Clock frequency</b>	528 MHz - 900 MHz	up to 1.7 GHz (A55), up to 250 MHz (M33)	up to 1.8 GHz (A53), 400 MHz (M4)
<b>AI/ML</b>	–	Arm® Ethos™-U65 microNPU	–
<b>Security</b>	TPM Chip	TPM Chip	TPM Chip
<b>MEMORY</b>			
<b>eMMC</b>	8 GB (opt. 4 GB -256 GB TLC)	32 GB (opt. 4 GB - 256 GB TLC)	8 GB (opt. 4 GB - 256 GB TLC)
<b>NAND Flash</b>	– (opt. 128 MB - 2 GB)	–	–
<b>SPI Flash</b>	– (opt. up to 8 MB)	–	– (opt. up to 8 MB)
<b>RAM</b>	512 MB DDR3 (opt. 128 MB - 2 GB)	2 GB LPDDR4 (opt. 512 MB - 2 GB)	2 GB LPDDR4 (opt. 512 MB - 4 GB)
<b>EEPROM</b>	4 kB (opt. up to 32 kB)	4 kB (opt. up to 32 kB)	4 kB (opt. up to 32 kB)
<b>SOFTWARE</b>			
<b>Operating system</b>	 Linux (Yocto based)	Linux (Yocto based)	Linux (Yocto based)

**Interfaces**

<b>Ethernet</b>	2x 10/100BASE-T	1x 10/100BASE-T, 1x 10/100/1000BASE-T	2x 10/100/1000BASE-T
<b>USB</b>	1x USB-A (+3x host via phyRail and internal connector)	1x USB-A (+3x host via phyRail and internal connector)	1x USB-A (+3x host via phyRail and internal connector)
<b>Serial</b>	1x RS-232 (with flow control, isol.) or 2x RS-232 (without flow control, isol.) or 1x RS-232 + 1x RS-485 (isol.)	2x RS-232 (without flow control, isol.) or 1x RS-232 + 1x RS-485 (isol.)	1x RS-232 (with flow control, isol.) or 2x RS-232 (without flow control, isol.) or 1x RS-232 + 1x RS-485 (isol.)
<b>CAN</b>	1x CAN isolated, second CAN available as TTL-signals on internal connector	1x CAN FD isolated, second CAN available as TTL-signals on internal connector	1x CAN FD isolated
<b>Wireless</b>	LTE optional (WLAN/Bluetooth on request)	LTE optional (WLAN/Bluetooth on request)	LTE optional (WLAN/Bluetooth on request)
<b>Digital I/O</b>	via phyRail extension module or internal	via phyRail extension module or internal	via phyRail extension module or internal
<b>MMC/SD/SDIO</b>	microSD Card Slot	microSD Card Slot	microSD Card Slot
<b>Sensors</b>	Temperature	Temperature	Temperature
<b>DIN Rail Extension</b>	phyRail extension bus (2x USB host, 1x SPI, 1x I²C)	phyRail extension bus (2x USB host, 1x SPI, 1x I²C)	phyRail extension bus (2x USB host, 1x SPI, 1x I²C)
<b>User Control Elements</b>	1x Button (programmable), 1x LED (Status), 2x LED (programmable)	1x Button (programmable), 1x LED (Status), 2x LED (programmable)	1x Button (programmable), 1x LED (Status), 2x LED (programmable)

**Physical Data**

<b>RTC</b>	Real-time clock with GoldCap, optional lithium cell for 10+ years buffering	Real-time clock with GoldCap, optional lithium cell for 10+ years buffering	Real-time clock with GoldCap, optional lithium cell for 10+ years buffering
<b>Power Supply</b>	min. 12 VDC (-10 %), typ. 24 VDC, max. 36 VDC (+10 %)	min. 12 VDC (-10 %), typ. 24 VDC, max. 36 VDC (+10 %)	min. 12 VDC (-10 %), typ. 24 VDC, max. 36 VDC (+10 %)
<b>Suplly Current</b>	max. 300 mA	tbd.	max. 300 mA - max. 2.5 A (dep. on variant)
<b>Housing</b>	Phoenix ICS	Phoenix ICS	Phoenix ICS
<b>Dimensions</b>	110 mm x 100 mm x 25 mm	110 mm x 100 mm x 25 mm	110 mm x 100 mm x 25 mm
<b>IP protection Class</b>	IP20	IP20	IP20
<b>Operating temperature*</b>	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C
<b>Certification</b>	CE, UL	CE, UL	CE, UL

\* Extended temperature range on request



[www.phytec.eu/phygate-tauri-s](http://www.phytec.eu/phygate-tauri-s)



[www.phytec.eu/phygate-tauri-m](http://www.phytec.eu/phygate-tauri-m)



[www.phytec.eu/phygate-tauri-l](http://www.phytec.eu/phygate-tauri-l)