

Key Features

- › **Ultra-Fast 5G Connectivity**
- › 5G NR FR1 data only M.2 module based on 3GPP Release 17 for ultra low latency, high throughput applications.
- › Supports **SA/NSA operation** with a single global SKU for **worldwide 5G and LTE coverage**.
- › Downlink rates **up to 4.9 Gbps** and uplink up to 0.55 Gbps with 4x4 DL / 2x2 UL MIMO and carrier aggregation.

Compact M.2 Form Factor, Easy Integration

- › Standard **30x52 mm M.2 (Key B)** card for straightforward integration into OEM and industrial platforms.
- › **USB 3.1 Gen 2** or **PCIe** data interface options for flexible host connectivity.
- › **Dual SIM** interfaces for multi network designs and global deployments.

Industrial Grade & Global Ready

- › Designed for industrial environments with an operating temperature range from **-40 °C to +85 °C**.
- › **Wide 5G and LTE band support for Europe, North America, and Asia** in a single module.
- › Based on **Qualcomm SDX720** for long term performance and a future proof 5G feature set.

Reliability, Security & Western Sourcing

- › **German engineered 5G M.2 module** with secure, transparent supply chain for industrial and infrastructure projects.
- › **Compliance** with major regulatory and carrier approvals (**GCF, PTCRB, RED, FCC, and key MNOs**).
- › **Ideal building block** for industrial PCs, gateways, transportation, and IoT devices needing **trusted 5G connectivity**

Related Products

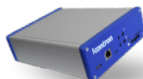
5G R17 Gateway
KCell 5G Industrial Gateway



KDemo-16-NGeCall
5G Automotive Solutions



KDemo-16-NGeCall
Ruggedized eCall Demonstrator



Kontron AG

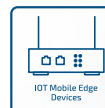
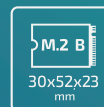
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5G R17 M.2-Key B

5G Broadband Modem

High-Speed, Secure and Robust Connectivity
for Industrial and Mobile Applications



5G Broadband Modem

The **Kontron IB17M W 5G Industrial M.2 Module** is a compact, high-performance cellular data card designed for mission-critical industrial and mobile use cases.

With 5G NR data rates **up to 4.9 Gbps** downlink and **550 Mbps uplink**, and USB 3.1/PCIe interfaces, IB17M W ensures fast, stable, and secure connectivity between field devices, control systems, and cloud applications



Security by Design

Qualcomm SDX72 0 platform with industrial hardening:

- › Secure Boot and hardware root-of-trust for trusted execution.
- › Support for secure element integration and firmware signing.
- › Compliance with 3GPP security standards and RED CyberSecurity Act.
- › Regular vulnerability scans and accelerated firmware updates via Kontron support.

Fast, stable and secure connectivity between field devices, control systems, and cloud applications.

Overview

5G NR FR1 standalone (SA) and nonstandalone (NSA)

- › Sub-6 3GPP Release 17 200MHz, 3xCA, 20L LTE
- › E-UTRAN new radio -dual connectivity (EN-DC) support
- › 4x4 DL MIMO, 2x2 UL MIMO
- › LTE carrier aggregation (CA) support
- › 5G NR SA downlink carrier aggregation (CA)
- › Qualcomm SDX 72-0 platform
- › 2 SIM interfaces
- › Dimensions : 30 x 52 x 2.3mm (single sided)
- › Supply voltage: Nominal 3.3V (±5%)
- › Operation temperature: -40°C to +85°C

General Features

Data-only Bandwidth:

- NSA: Up to 4.9Gbps DL, up to 0.55Gbps UL
- SA: Up to 4.1Gbps DL, up to 0.90Gbps UL 2XCA

Memory industrial grade:

4Gbit RAM and 4Gbit FLASH

Interfaces

4 antenna ports:

- Cellular: 2 x TRX , 4 x RX
- GNSS: Integrated (optional)
- Data interface: USB 3.1 Gen2/ PCIe

RF Bands

5G:

n1, n2, n3, n5, n7, n8, n25, n28, n29(DL), n30, n38, n40, n41, n48, n66, n70, n71, n75(DL), n77, n78, n79

4G:

B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29(DL), B30, B32(DL), B34, B38, B39, B40, B41, B42, B43, B46(DL), B48, B66, B67(DL), B68, B70, B71

Regulatory and Approvals

RoHS mandates compliant

WEEE compliant

GCF, PTCRB, RED, FCC

Regulatory and MNO approvals-US (AT&T)



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