

# PTK1061 60 GHz Evaluation Kit



## 60 GHz Evaluation Kit Overview

Compliant with the IEEE 802.11ad standard, the Evaluation Kit (EVK) is a ready-to-use, configurable 60 GHz radio, which provides up to 3.5 Gbps of throughput in both point-to-point (PtP) and point-to-multipoint (PtMP) topologies, allowing rapid and efficient evaluation of features and performances.

The EVK integrates Pharrowtech's PTM1060 Radio Frequency Module, the Renesas RapidWave™ RWM6051 Modem Integrated Circuit and an ARM-based quad-core NPU.

## Software Development Kit

The EVK includes a software development kit (SDK) with a board support package (BSP) and a web-based startup and configuration system.

The SDK is based on the OpenWrt build system, which allows users to easily add custom features and compile them into a firmware upgrade image, to meet their specific requirements.

## Key Features

- Standard: IEEE 802.11ad
- Frequency range: 57-71 GHz
- Channel bandwidth: 540 MHz / 1.08 GHz / 2.16 GHz
- Throughput: 3.5 Gbps
- Subscribers per sector: 30
- Scheduler: TDMA
- Duplex: TDD
- Downlink/uplink split: Asymmetric
- Antenna: 8x8 phased array antenna with electronic beamforming
- FoV Azimuth:  $\pm 45^\circ$
- FoV Elevation:  $\pm 30^\circ$
- QoS: 4 queues
- Interfaces:
  - 1 x 2.5 Gbps (Nbase-T) Eth with PoE in (48 V)
  - 1 x 1 Gbps (Nbase-T) Eth with PoE out (48 V)
  - 1 x DC Power In/Out (48 V)
- NPU: Cortina/Realtek ARM-based quad-core A55 with hardware acceleration
- Dimensions HxWxD: 18 cm, 9 cm, 3 cm
- Weight: 400 g

## Kit includes

- 2 x EVK units
- 2 x PoE power supplies
- 2 x RJ45 cables
- 2 x USB-C to 2.5G ETH adapters

## Pharrowtech PTR1060 RF IC and PTM-1060 RF Module

Compliant with IEEE 802.11ad/ay and 3GPP (Rel. 17) ready, the Pharrowtech PTR1060 is the world's first fully integrated mmWave CMOS receiver and transmitter Radio Frequency Integrated Circuit (RFIC) that operates over the entire 57 - 71 GHz band.

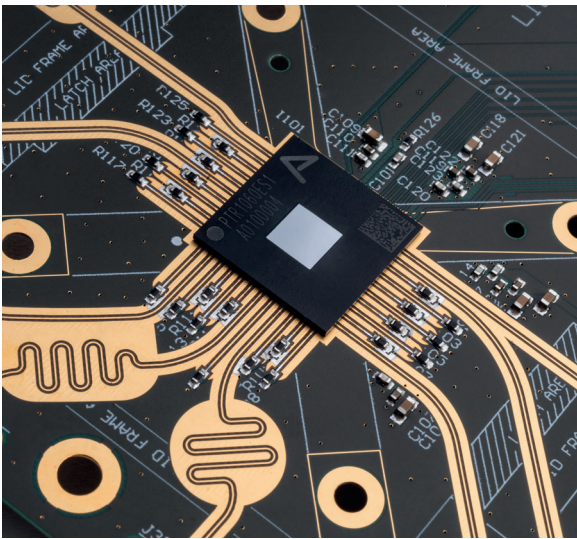
The PTM1060 combines the PTR1060 RFIC with an 8x8 phased array antenna. The chip delivers a unique combination of superior RF performances, low power consumption, low-cost structure and unique value-add features.

## Renesas RapidWave™ RWM6051 modem IC

Compliant with IEEE 802.11ad, the Renesas RapidWave™ RWM6051 modem IC is a millimeter wave (mmWave) multi-giga-bit mixed signal wireless SoC solution.

The RWM6051 features a high degree of configurability with flexible channelization, adaptive MCS, and interference management schemes enabling next generation of self-organizing PtP, PtMP, and Mesh systems.

Ordering Information	Ordering Part Number	Shipping
	PTK1061	Box



## About Pharrowtech

Pharrowtech develops innovative wireless platforms to simplify and accelerate the adoption of millimeter-wave technology for mass-market applications. Our products include radiofrequency and digital semiconductors, phased array antennas, and software solutions.

Pharrowtech's leading products serve fast-growing markets including broadband fixed wireless access (FWA) and 5G, as well as high performance Wi-Fi platforms for consumer electronics, virtual reality (VR) headsets, and smart city IoT applications.

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