

Wireless and LTE update

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Wireless Update

Nv2 for ARM boards

- Nv2 wireless protocol improvements for RouterBOARDs using ARM architecture – speed improvement and stability
- Changes added in RouterOS v6.44

UNII-2 frequency band

- Added support for UNII-2 wireless frequency band for US locked boards
- Firsts boards:
  - RBLHG-5HPnD-XL
  - RBLHG-5HPnD
  - RBSXTsq5HPnD
- Support added in RouterOS v6.45beta27

Canada country selection

- Added option for selecting Canada country in wireless configuration for the US locked boards
- First boards:
  - RBLHG-5HPnD-XL
  - RBLHG-5HPnD
  - RBSXTsq5HPnD
- Option enabled starting with RouterOS v6.45beta27

LTE Update

Full range LTE products



wAP LTE kit



LtAP mini LTE kit

Full range LTE products



SXT LTE kit



LHG LTE kit

LTAP

- Multi-core CPU
- Gigabit Ethernet
- Built-in 2.4ghz Wireless
- Built-in GPS
- 2 slots for LTE modems (one slot support USB 3.0)
- USB port (shared with slot for modem)



R11e-4G modem

- LTE modem designed for 2.6Ghz and 3.5Ghz LTE networks
- Supported LTE bands:
  - TDD 41,42,43
  - FDD 3,7,20,31
- NO support for 2G and 3G networks



New 4G modem kits

- wAP 4G kit:
  - wAP R + R11e-4G modem
- LtAP mini 4G kit:
  - LtAP mini + R11e-4G modem
- SXT 4G kit:
  - SXT R + R11e-4G modem
- LHG 4G kit:
  - LHG R + R11e-4G modem

Differences between R11e modems

- Each modem supports different LTE bands and designed for different market

4G	.	.	3	.	.	7	.	.	20	31	.	.	41n	42	43
LTE	1	2	3	.	5	7	8	.	20	.	38	40	.	.	.
LTE US	.	2	.	4	5	.	.	12	.	.	.	.	.	.	.

Difference between LTE,LTE-US,4G kits

- Each kit has board with different LTE modem inside:
  - LTE – R11e-LTE modem
  - LTE-US – R11e-LTE-US modem
  - 4G – R11e-4G modem

Audience LTE

- Two 5Ghz wireless
  - 4x4 MIMO
  - 2x2 MIMO
- One 2.4Ghz wireless
  - 2x2 MIMO
- LTE CAT6 modem



CAT 6 LTE modem

- First MikroTik LTE Category 6 LTE modem:
  - Downlink up to 300Mbps
  - Uplink uo to 50Mbps
  - Mini-PCIe form factor
  - Supported by all the RouterBOARDs with mini-PCIe slots that are designed for modems
- Carrier Aggregation (CA) with up to 2 bands
- Supported LTE bands and CA combinations – released in Summer

InterCell Series

- First MikroTik LTE SmallCell BaseStation Product line
- First InterCell products focuses on Outdoor solutions
- First InterCell Series product:
  - 10W outdoor Base Station for LTE Band 38 (2.6Ghz) and Band 39 (1.9Ghz)

InterCell Series Outdoor

- 10W TDD 2x2 MIMO LTE Base Station
- Single Carrier and Dual Carrier option
- 5/10/15/20 Mhz channel width support
- 4 Products with different LTE Bands:
  - B38+B39
  - B38+B38
  - B38
  - B39



InterCell Series Outdoor LTE Band Mapping

- Option to enable the mapping to a different LTE bands that supports the same frequency range
- B38 supported range (2570-2620Mhz)
  - Band-mapping to B41 within the same range (2570-2620Mhz)
- B39 supported range (1880-1920Mhz)
  - Band-mapping to B33 within the same range (1900-1920Mhz)

InterCell Series Outdoor

- LTE speed pec Cell
  - DL 140Mbps (256QAM, SF2)
  - UL 30Mbs (64QAM, SF1)
- Supported Clients per Cell
  - Up to 96 Connected Active
  - Up to 192 Connected
- Built-in EPC on board with up to 256 client support
- VoLTE and LIPA support
- +/-48VDC Power supply
- 2xSFP and 2xETH (gigabit ports)
- Metal Enclosure with IP 67 rating

InterCell Future plans

- Create new outdoor InterCell products for different LTE bands/frequencies
  - CBRS (B42,B43,B48)
  - Full B41 support
- Make Indoor SmallCell products

Thank you

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