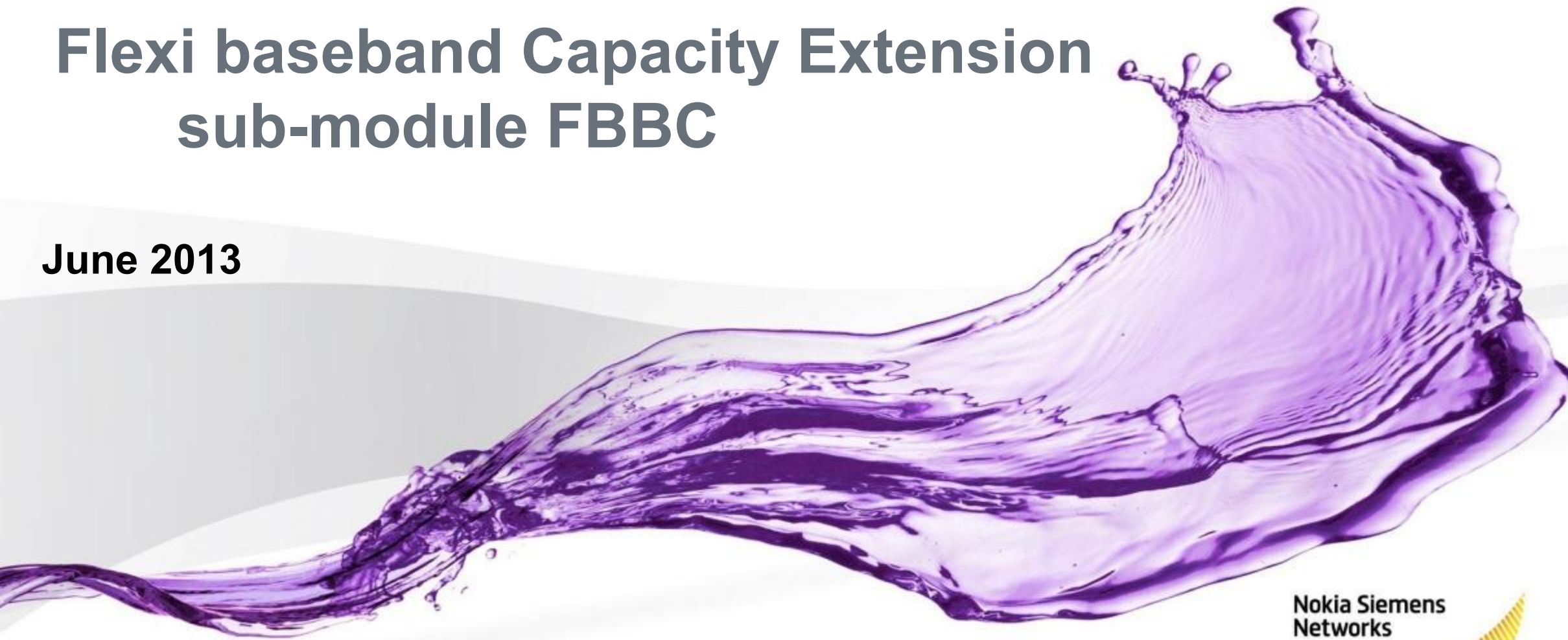


Flexi baseband Capacity Extension sub-module FBBC

June 2013



Nokia Siemens
Networks



Introducing new Capacity Extension sub-module FBBC

RL60

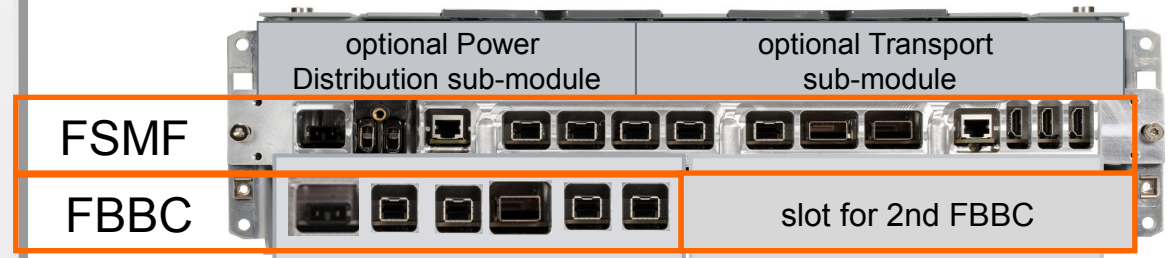
Outdoor Flexi System Module with 12 RF links

- to enhance RF connectivity of the Flexi Multiradio System Module
- FBBC has the same baseband capacity as FBBA
- FBBC will be commercially available in RL60
- Full connectivity will be enabled in RL70
- FBBC will replace FBBA in LTE deliveries



Improved RF unit connectivity with FBBC

- FBBC has the same capacity as FBBA
 - 3 cells @ 20 MHz or
 - 6 cells @ 10 MHz with 2TX and 2RX
- 4 optical ports in FBBC HW (OBSAI RP3 6 Gbps)
- Total 12 ports with FSMF + 2 FBBC
- Can be used with FBBA
- RL60 SW enables one RP3 port in use
- RL70 SW enables four RP3 ports in use



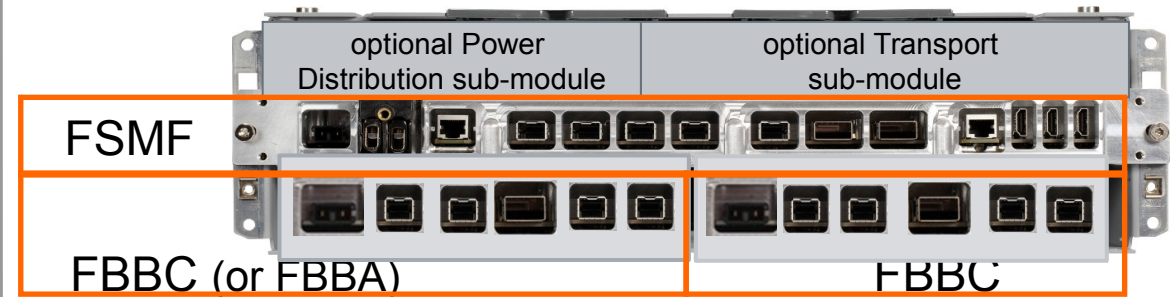
LTE1644 configurations with one FBBC
LTE1508 configurations with two FBBCs (or FBBC + FBBA)

Flexi Multiradio 10 BTS Capacity with two Extension sub-modules

RL60

Full System Module capacity with two FBBCs or FBBA & FBBC

- FBBA/FBBC supports 3 cells @ 20 MHz with 2TX and 2RX
- Example configurations FSMF + two FBBCs (or FBBC + FBBA) can support, e.g.
 - 9 cells @ 20 MHz with 2TX and 2RX, or
 - 18 cells @ 10 MHz with 2TX and 2RX, or
 - 3 cells @ 20 MHz and 3 cells @ 10 MHz with 4TX and/or 4RX diversity, or
- Separate SW licenses needed for 4x2 TX MIMO and 4RX SW features



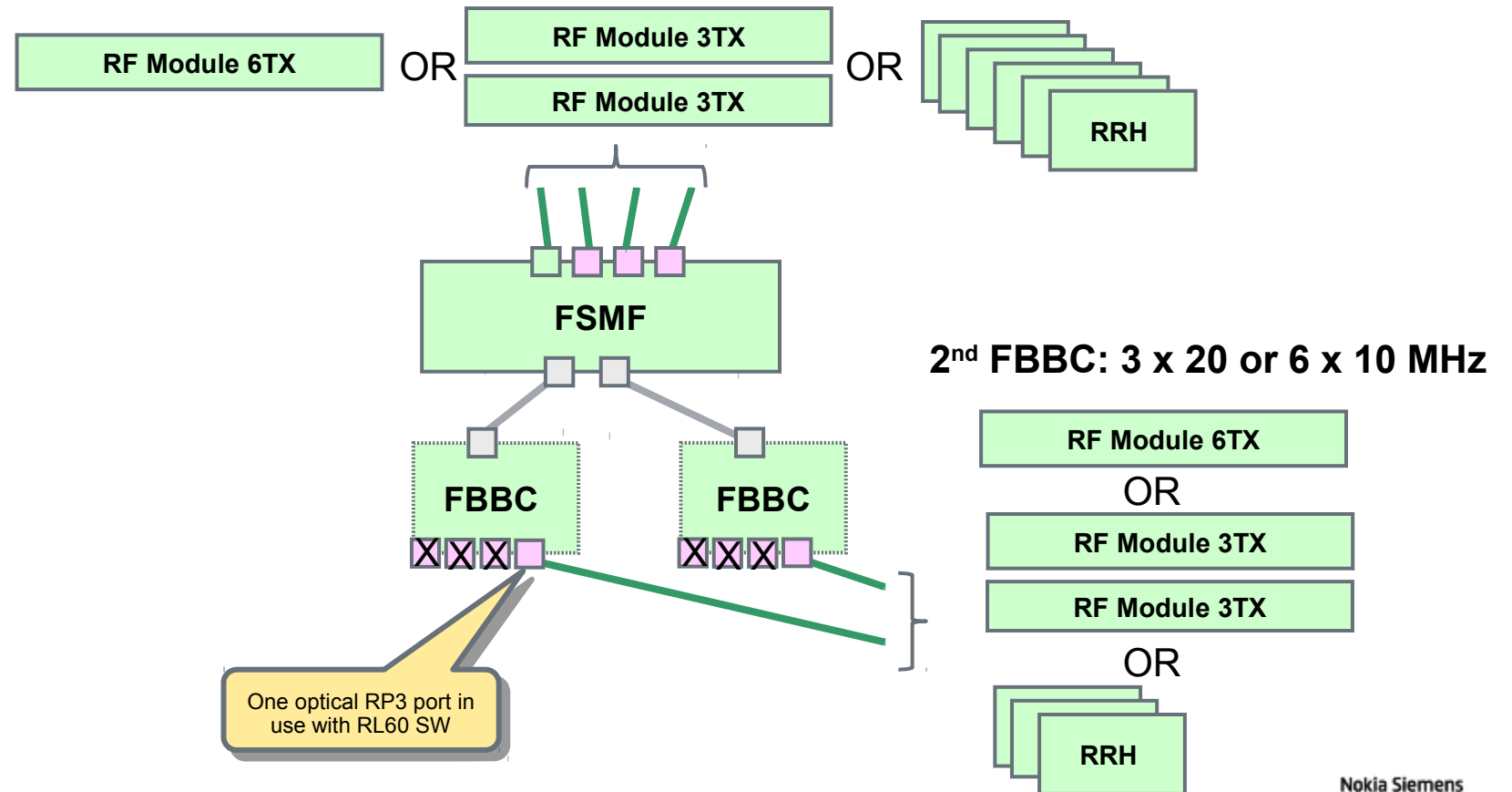
System Module capacity with 2 FBBCs RL60

RL60

Example configuration with two FBBCs

FSMF + 1st FBBC : 6 x 20 or 12x10 MHz 2TX 2RX cells

- 6 optical ports in use with RL60
 - 4 in FSMF
 - 1 in each FBBC
- max 18 cells @ 10 MHz or
- max 9 cells @ 20 MHz



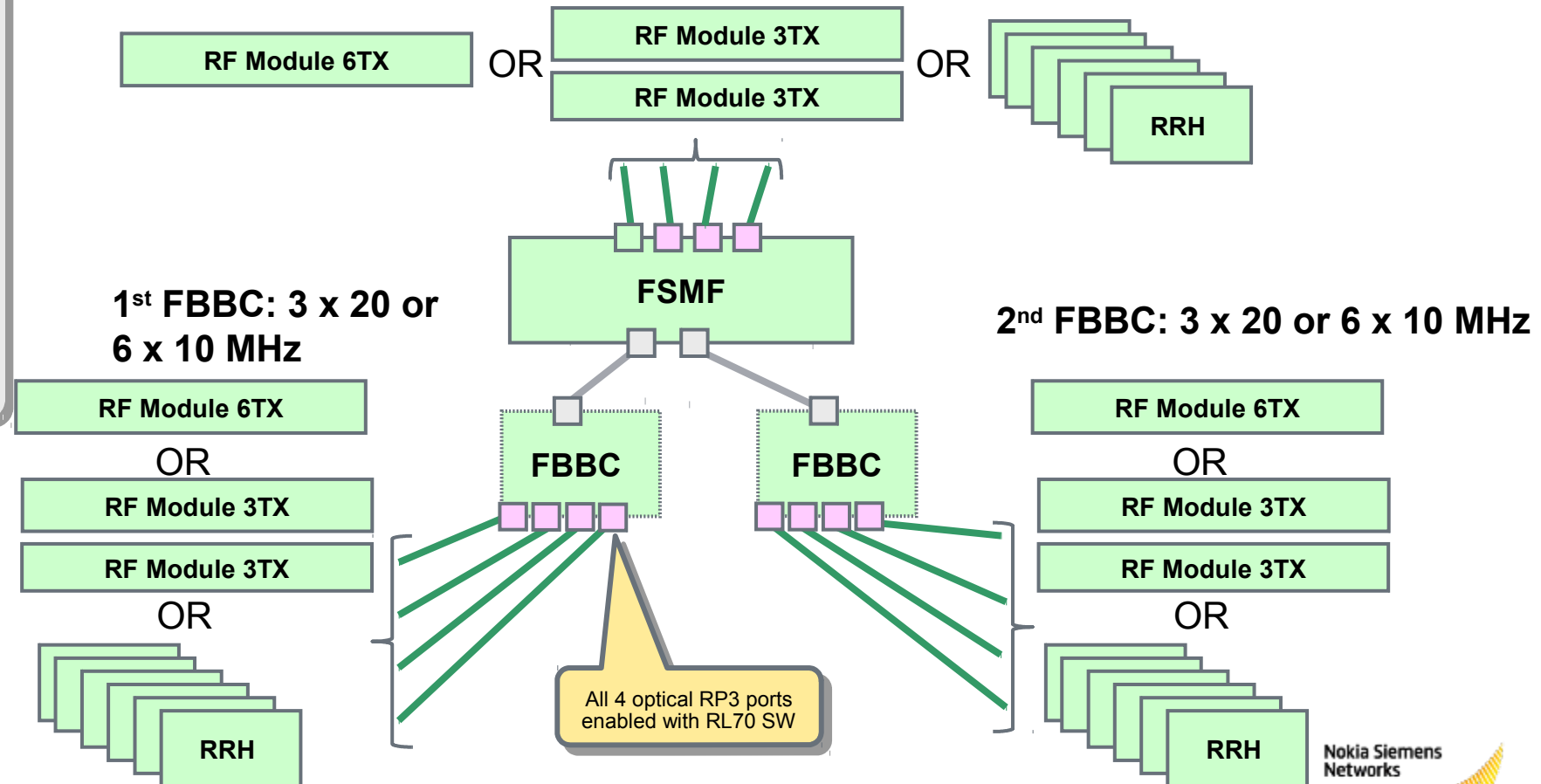
Full System Module capacity & flexibility RL70

RL70

Example configuration with two FBBCs

- 12 optical ports supported with RL70
 - 4 in FSMF
 - 4 in each FBBC
- max 18 cells @ 10 MHz or
- max 9 cells @ 20 MHz

FSMF : 3 x 20 or 6x10 MHz 2TX 2RX cells



FBBC interfaces

FSMF with two FBBCs

with optional power distribution sub-module FPPD and optional transport sub-module FTIF



DC power input

RP3 RF ports #1,2,3

QSFP port to FSMF

RP3 port #4 or SRIO Combo port

Thank you



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