Security Level:

Huawei 3G Solution

TTML - RoM

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Huawei Node-B: **Solution for all scenarios**

BTS3900
Indoor Macro BTS

- 80W PA
- 24 carriers
- G/U, U/L, G/L
- MIMO (HSPA+)
- 25Mhz band

- Dense urban
- Urban

DBS3900
Distributed BTS

- 60W PA
- 4 carriers/RRU
- G/U, U/L, G/L
- MIMO (HSPA+)
- 25Mhz band

- Top of building
- Top of Tower

BTS3900A
Outdoor Macro BTS

- 80W PA
- 24 carriers
- G/U, U/L, G/L
- MIMO (HSPA+)
- 25Mhz band

- Urban
- Residence

BTS3900C
Micro BTS

- 60W PA
- 3 carriers/unit
- MIMO (HSPA+)
- 25Mhz band

- Rural area
- Hotspot

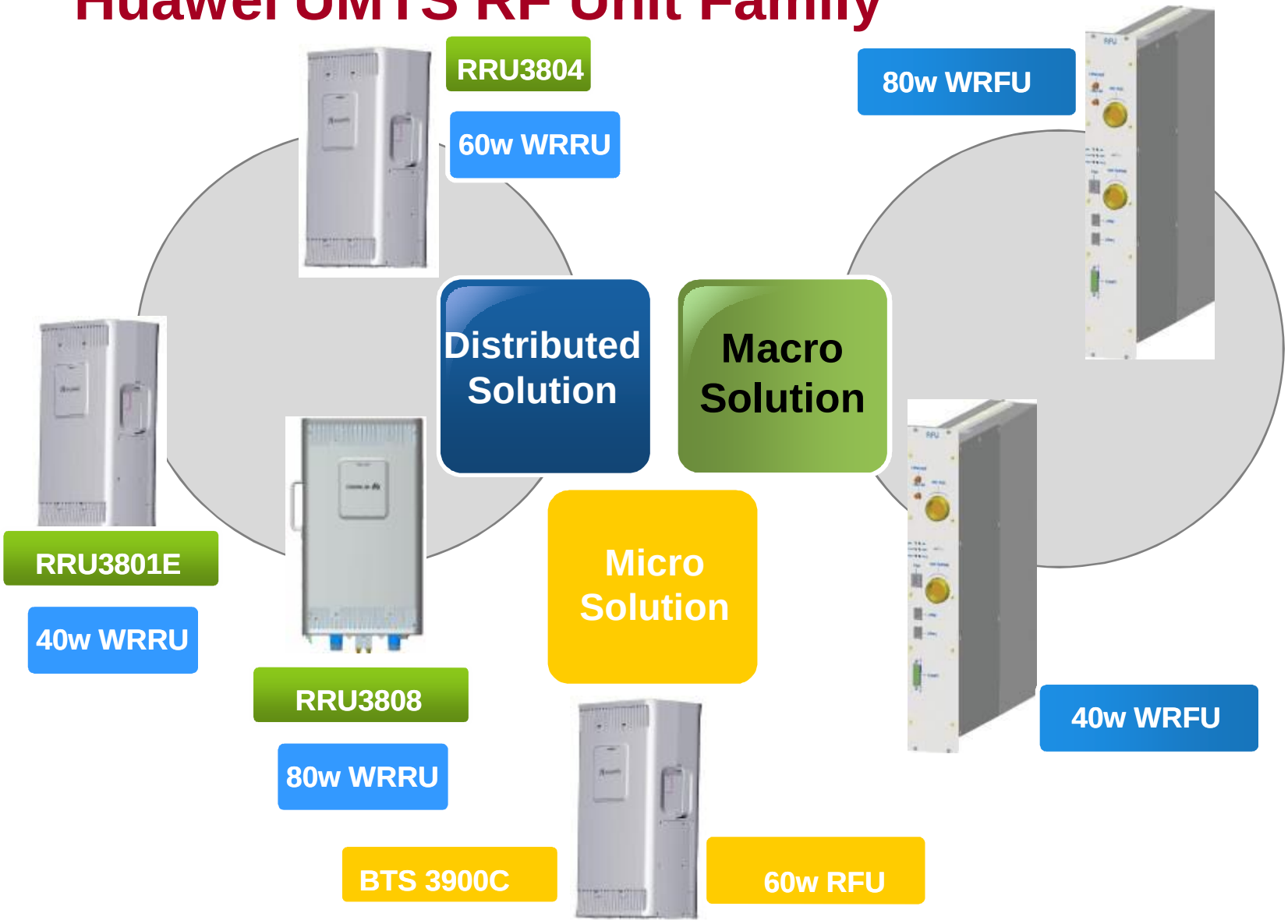
ePico

- 100 MW output power
- 1 carriers/unit
- HSPA
- 16 CS/ 8 PS user

- SME
- CBD

GSM/UMTS/LTE multi-mode network

Huawei UMTS RF Unit Family



WRFU: 80W & 40W

WRFU40W

WRFU80W

- ü*Same Dimension and Appearance*
- ü*Same Ability of Evolution*
- ü*Different Capacity Meet Different Requirement of Operators*

Item	WRFU40W	WRFU80W
Weight	11Kg	
Band	Band (2100M)	
Capacity	4 carriers	2 carriers
Output Power	1 Carrier: 60W/carrier 2 Carrier: 40W/carrier 3 Carrier: 20W/carrier 4 Carrier: 20W/carrier	1 Carrier: 40W/carrier 2 Carrier: 20W/carrier
Receiver Sensitive	2100M Band: 1-way receiver diversity: -125.8dBm, –126.5 dBm 2-wayreceiver diversity : -128.6dBm , –129.3 dBm	

RRU Twins:RRU3804 and RRU3801E

RRU3801E

And

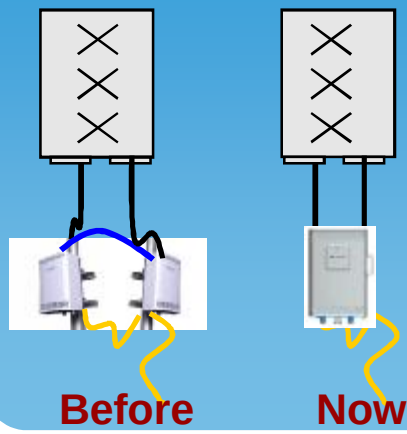
RRU3804

- ü*Same Dimension and Appearance*
- ü*Same Ability of Evolution*
- ü*Different Capacity Meet Different Requirement of Operators*

Item	RRU3804	RRU3801E
Dimension (h*w*d)	485mm × 285mm × 170mm	
Weight	17Kg	
Band	Band (2100M)	
Capacity	4 carriers	2 carriers
Output Power	1 Carrier: 60W/carrier 2 Carrier: 30W/carrier 3 Carrier: 20W/carrier 4 Carrier: 15W/carrier	1 Carrier: 40W/carrier 2 Carrier: 20W/carrier
Receiver Sensitive	2100M and AWS Band: 1-way receiver diversity: -125.8dBm, –126.5 dBm 2-wayreceiver diversity : -128.6dBm , –129.3 dBm 4-wayreceiver diversity : -131.3dBm , –132.0 dBm	

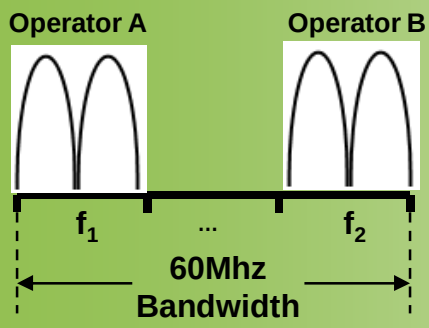
RRU3808: Super Star in UMTS Area

MIMO Scenario



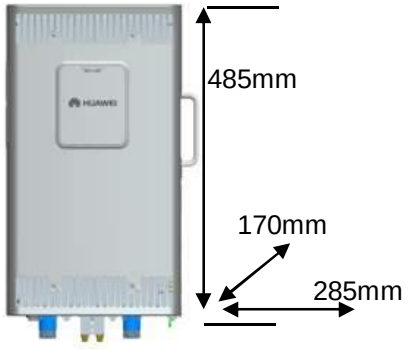
- Ø Two Transmission Channels to Support 2*2 MIMO instead of two traditional RF modules.
- Ø Capacity: 4 Carriers
- Ø Output Power:2*40w
- Ø Weight:19Kg

RAN Sharing Scenario

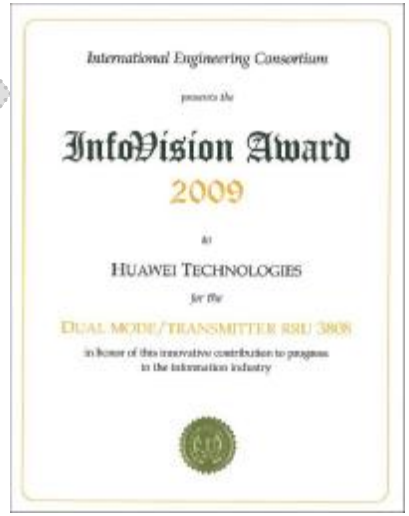


Just One Module

- Ø Band:2100MHz
- Ø Totally 60Mhz bandwidth, providing enough capacity for covering spectrum gaps

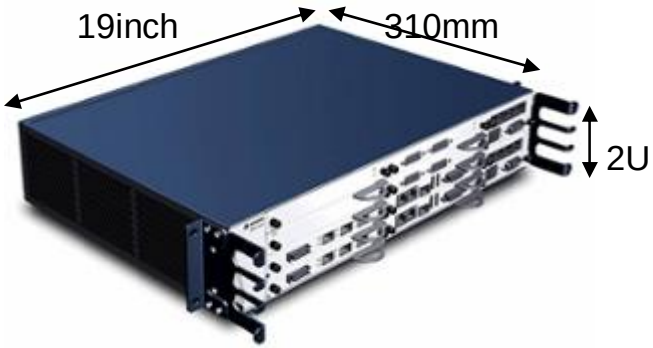


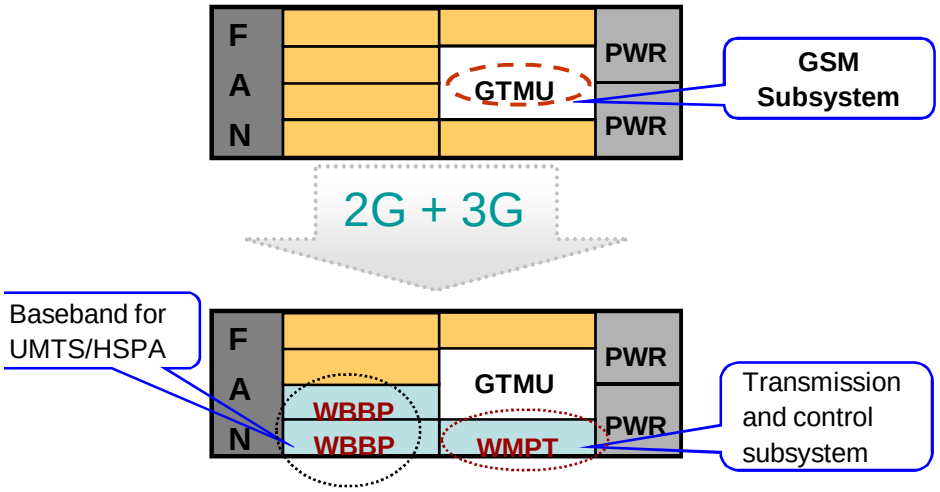
InfoVision Award to RRU3808 in 2009



UL Hardware Ready, Best Choice for Evolution!

BBU3900, Scalable & evolve to 3G





Weight	7kg (typical configuration) 11 kg (full configuration)
Max Power Consumption	Typical: 100W ; Maximum: 250W
Power Supply	-48V DC (-38.4V～-57V DC)
Configuration	Maximum: 6 sectors × 4 carriers， 3 sectors × 8 carriers
Capacity	72TRX + 24 cell, 1536 UL / 1536 DL CE
IP environmental ratings	IP20
Transmission interfaces	max 32 E1 or 4 FE+8 E1

1. ***Flexible Replace and Easy Evolution***
2. ***Shared by Macro/Micro/Distributed NodeB***
3. ***Common Platform with GSM/UMTS/LTE***

BTS3900: Macro Indoor Solution

Item	Specification
Dimensions	900 mm x 600 mm x 450 mm (H x W x D)
Band	2100MHz
Capacity	24cells maximum configuration: 6 × 4,3 × 8 UL: 1536CEs ; DL: 1536CEs
Output Power	Type1: 4 carriers per WRFU, 80W max Type2: 2 carriers per WRFU, 40W max
Receiver sensitivity	1-way -125.8dBm , -126.5dBm 2-way -128.6dBm , -129.3dBm
Transmission interface	A maximum of 32 E1/T1 ports, 2 FE electrical ports, 2 FE optical ports
Power supply	–48 V DC(–38.4 V DC to –57 V DC) +24 V DC(+21.6 V DC to +29 V DC) 220V AC single-phase(176V AC to 290V AC) 220V AC three-phase(176/304V AC to 290/500V AC)
Power consumption	Configuration Typical Maximum 3 × 1 520W 620W

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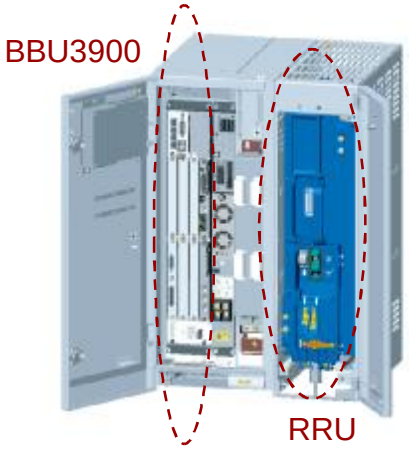
BTS3900A: Macro Outdoor Solution

Item	Specification
Dimensions (H × W × D)	RF cabinet : 700 mm x 600 mm x 480 mm APM30 cabinet : 700 mm x 600 mm x 480 mm
Band	2100MHz
Capacity	24cells maximum configuration: 6 × 4,3 × 8 UL: 1536CEs ; DL: 1536CEs
Output Power	Type1: 4 carriers per WRFU, 80W max Type2: 2 carriers per WRFU, 40W max
Receiver sensitivity	1-way -125.8dBm* , -126.5dBm** 2-way -128.6dBm* , -129.3dBm**
Transmission interface	A maximum of 32 E1/T1 ports, 2 FE electrical ports, 2 FE optical ports
Power supply	–48 V DC(–38.4 V DC to –57 V DC) 110 V DC(+21.6 V DC to +29 V DC) 220V AC dual-live-wire 220V AC three-phase(176/304V AC to 290/500V AC)
Power consumption	Configuration Typical Maximum 3 × 1 630W 740W

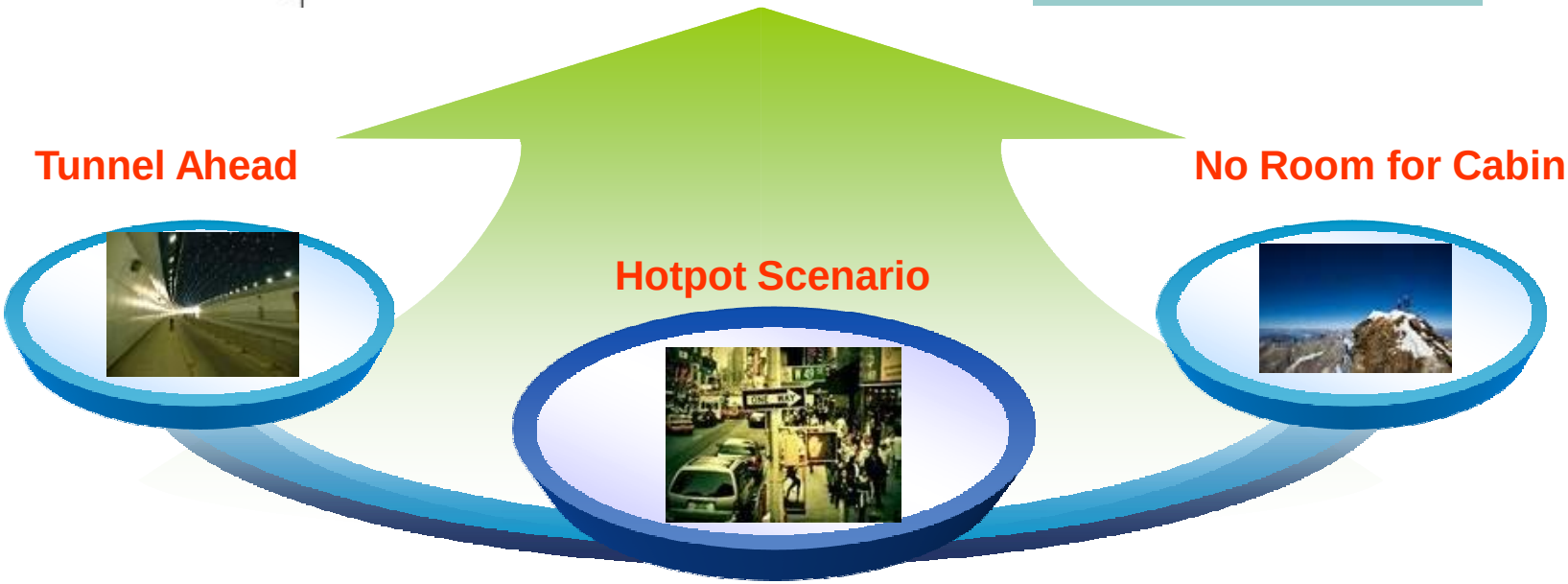
BTS3900C: Micro Outdoor Solution



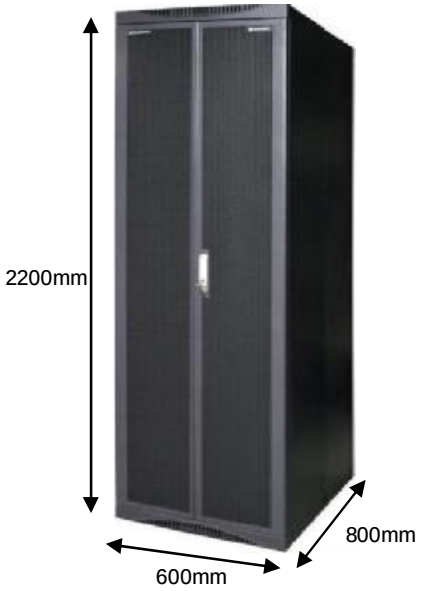
RRU3801C/RRU3801E/RRU3804 Can be Inserted

Capacity: 3 Cells, maximum configuration: 1 × 3
UL: 384CEs ; DL: 384CEs

Transmission interface:
A maximum of 8 E1/T1 ports, 2 FE electrical ports, 2 FE optical ports

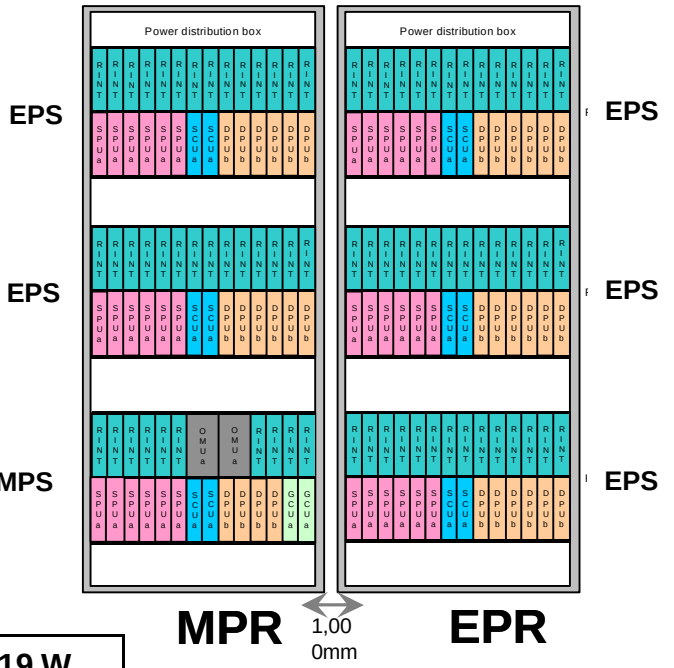


Powerful RNC 6900



Weight ≤350kg/cabinet

Item	Specification
BHCA(K)	2,370
Traffic Volume (Erl)	80,400
PS(UL+DL) data throughput (Mbit/s)	8,040
Number of NodeB	3,000
Number of Cells	5,100



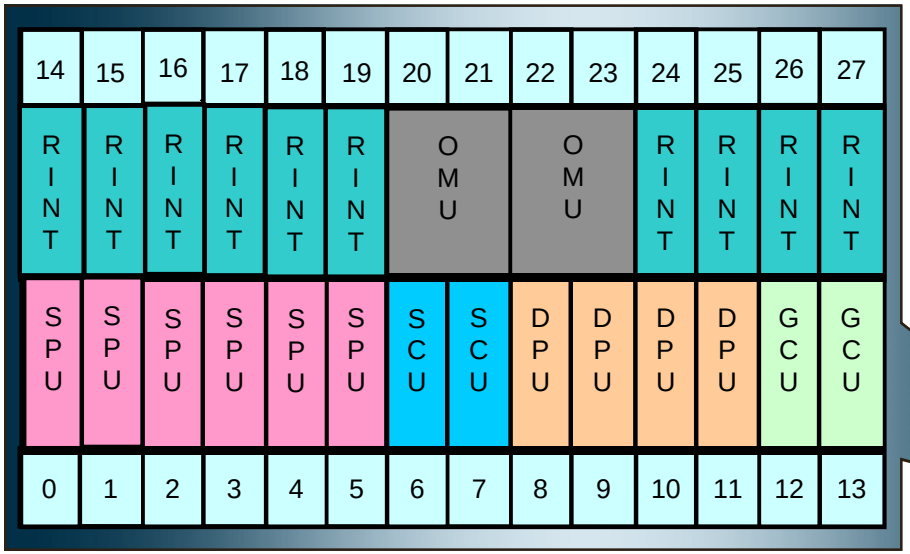
Power consumption of BSC6900	Power consumption in a subrack	MPS: ≤ 1,219 W EPS: ≤ 1,154 W
	Power consumption of a cabinet in full config.	MPR: ≤ 3,616 W EPR: ≤ 3,824 W

1. Advance large capacity & high density RNC proposed from first year solution itself

2 . Support both TDM and IP transmission from day one and do not require additional interface

High capacity board reduce numbers of RNC

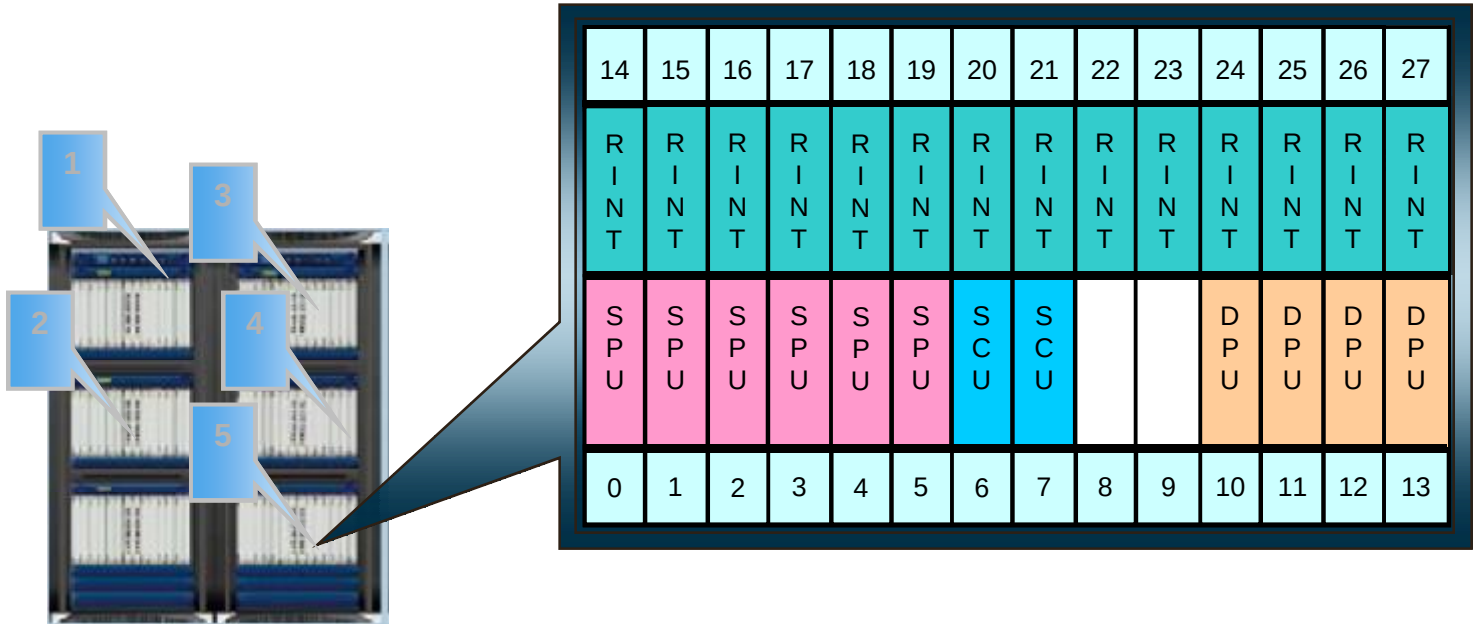
RNC : MPS Subrack



BSC6900

Boards	Name	Configuration
DPU	Data Processing Unit	Slots 8–11 & 14–19 (max.4)
GCU	General Clock Unit	*Slots 12 & 13
GCG	General Clock with GPS Card	*Slots 12 & 13
OMU	Operation & Maintenance Unit	*Slots 20 & 21 and slots 22 & 23
SCU	GE Switching and Control Unit	*Slots 6 & 7
SPU	Signaling Processing Unit	Slots 0–5 & 8–11 (max.6)

RNC6900 : EPS Subrack



BSC6900

Boards	Name	Configuration
DPU	Data Processing Unit	Slots 8–19 (max.4)
SCU	GE Switching and Control Unit	*Slots 6 & 7
SPU	Signaling Processing Unit	Slots 0–5 & 8–11 (max.6)

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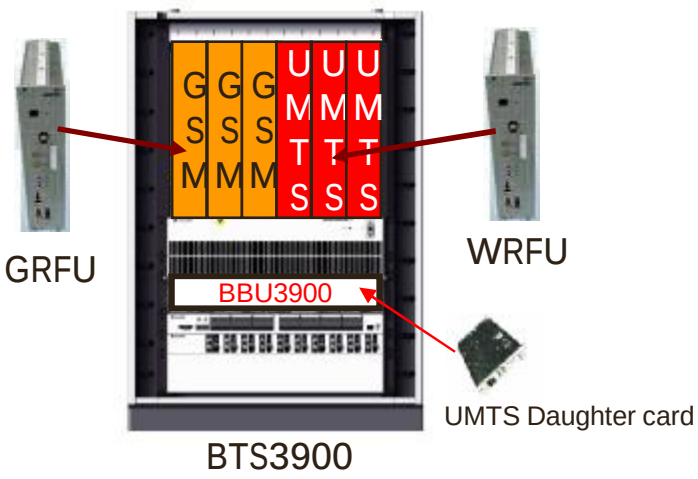
Huawei SINGLERAN Solution Option 1: BTS3900

Co-cabinet with Indoor BTS3900

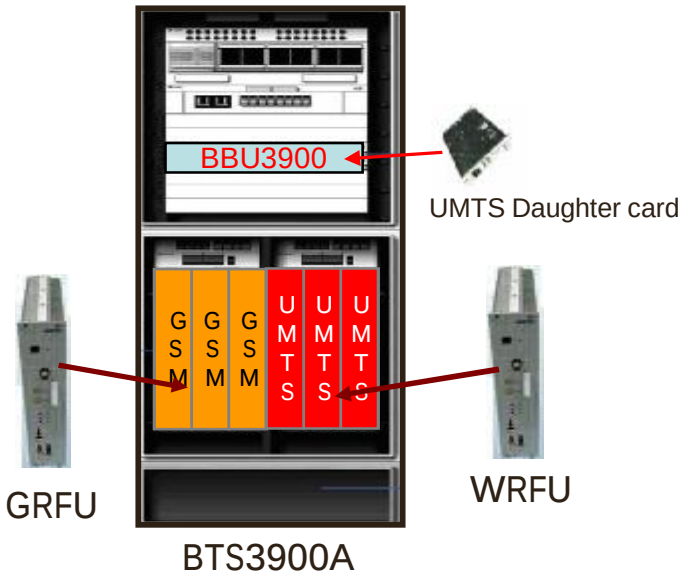


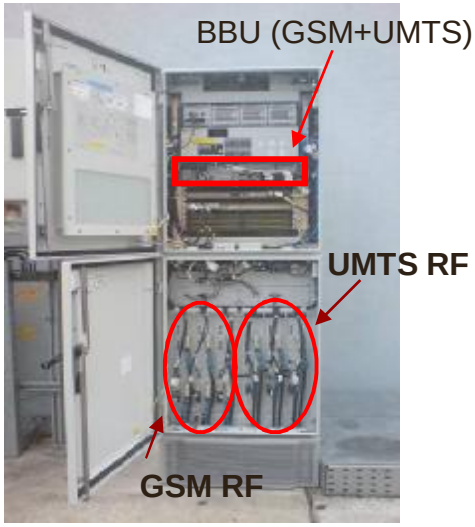
Cabinet based Multi-mode convergence

- GSM and UMTS share same BBU and RF cabinet
- Insert UMTS Daughter card in BBU without GSM service interruption
- Use existing site auxilliary
- Fast Network Deployment
- Zero Footprint needed for UMTS network

Huawei SINGLERAN Solution Option 2: BTS3900A

Co-cabinet with Outdoor BTS3900A





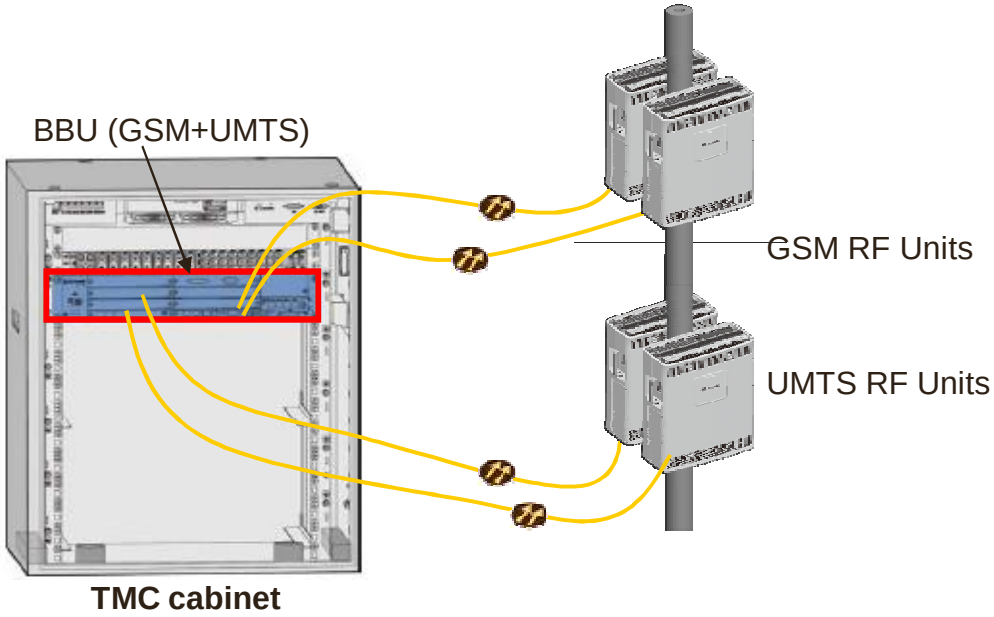
BTS3900A (GSM+UMTS)

Cabinet based Multi-mode convergence

- GSM and UMTS share same BBU and RF cabinet
- Insert UMTS card in BBU without GSM service interruption
- Use site existing auxiliary
- Fast Network Deployment
- Zero Footprint needed for UMTS network

Huawei SINGLERAN Solution Option 3: DBS3900

Co-BBU with Distributed DBS3900

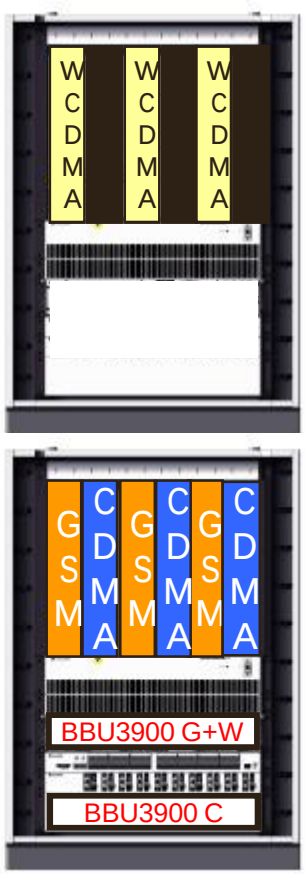


Distributed based Multi-mode convergence

- GSM and UMTS share same BBU
- Insert UMTS card in BBU without GSM service interruption
- Fast Network Deployment
- Zero Footprint needed for UMTS network

Huawei SINGLERAN Solution Option-Combo:BTS3900

Co-cabinet with indoor BTS stack to support 3G



BTS3900

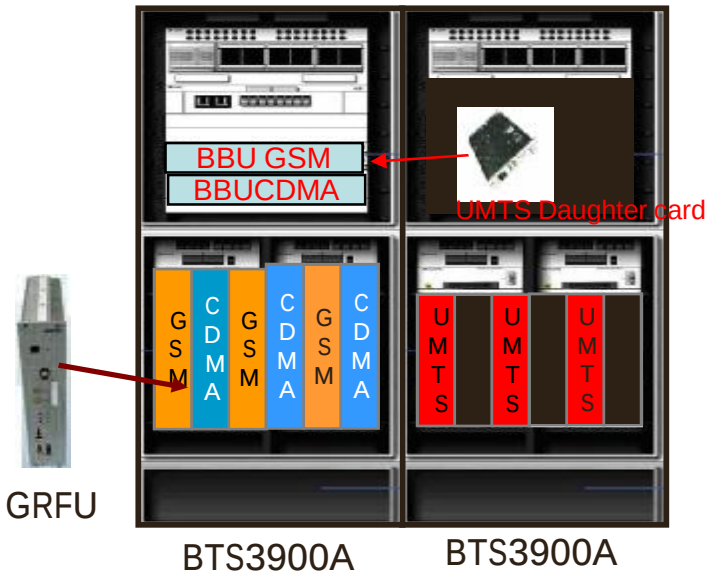
Distributed based Multi-mode convergence

- GSM and CDMA share same BTS cabinet
- Stack-on cabinet on existing combo BTS for UMTS
- GSM and UMTS share same BBU
- Insert UMTS card in BBU and stack-on cabinet
- Fast Network Deployment
- Zero Footprint needed for UMTS network

Current Combo BTS3900

Huawei SINGLERAN Solution Option- Combo: BTS3900A

Co-cabinet with Outdoor BTS3900A



Combo
BTS3900A

Cabinet based Multi-mode convergence

- GSM and UMTS share same BBU and RF cabinet
- Insert UMTS card in BBU without GSM service interruption
- Use site existing auxiliary
- Fast Network Deployment
- Zero Footprint needed for UMTS network

Thank you

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