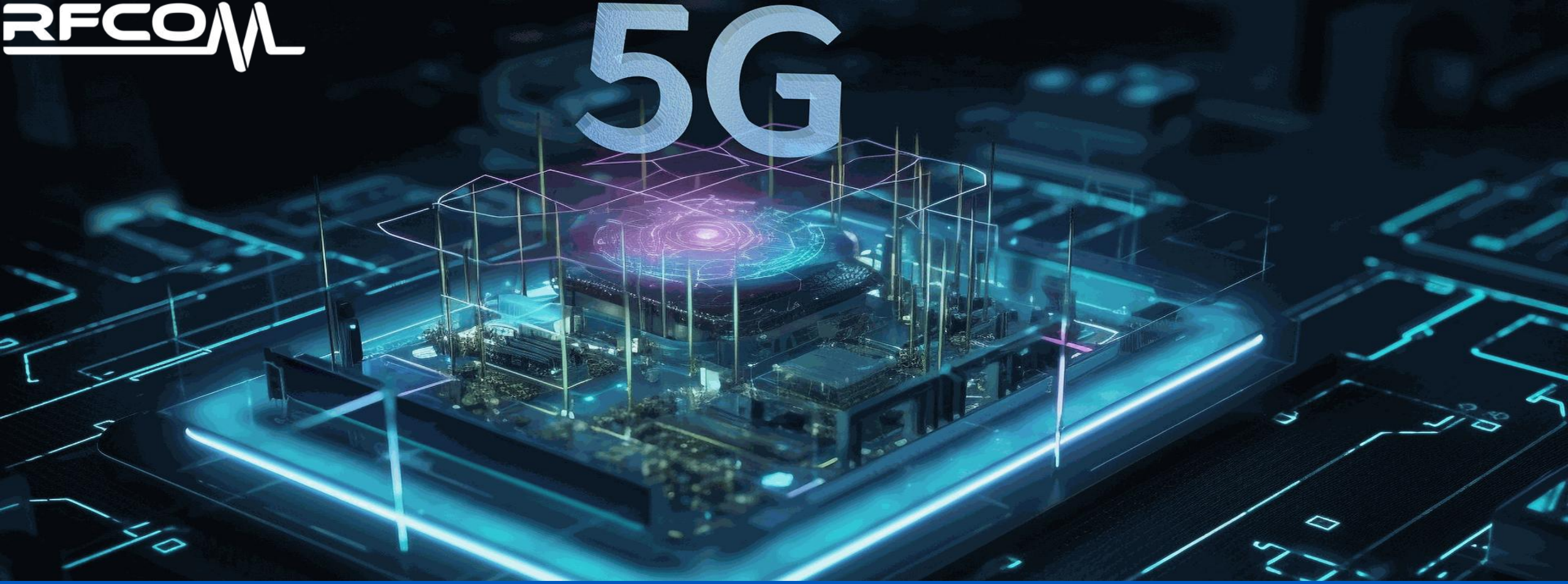
RFCOM



5G Coverage Systems

Revolutionize 5G Indoor Coverage Without Infrastructure Overhaul

Solve the 5G Dilemma: Future-Proof Legacy DAS at 70% Lower Cost

Tired of costly, time-consuming DAS upgrades?

RFCOM's 5G Coverage System transforms aging coaxial networks into high-performance 5G MIMO (2T2R/4T4R) ready systems in 3 days – no infrastructure rebuilds required!

What is it used for?

Unlock 5G MIMO 2T2R or 4T4R on Legacy Coaxial Networks

The 5G Indoor Coverage Dilemma

Passive DAS Systems:

NO MIMO Support(2T2R/4T4R)
3-6 month deployments
Higher signal loss
Zero remote monitoring

Optic Digital DAS Systems:

Prohibitively expensive deployments
Months-long installations
Higher power consumption
Complex site modifications

What can RFCOM's 5G Coverage systems do?

Implementing 5G MIMO 2T2R or 4T4R using the existing passive DAS systems

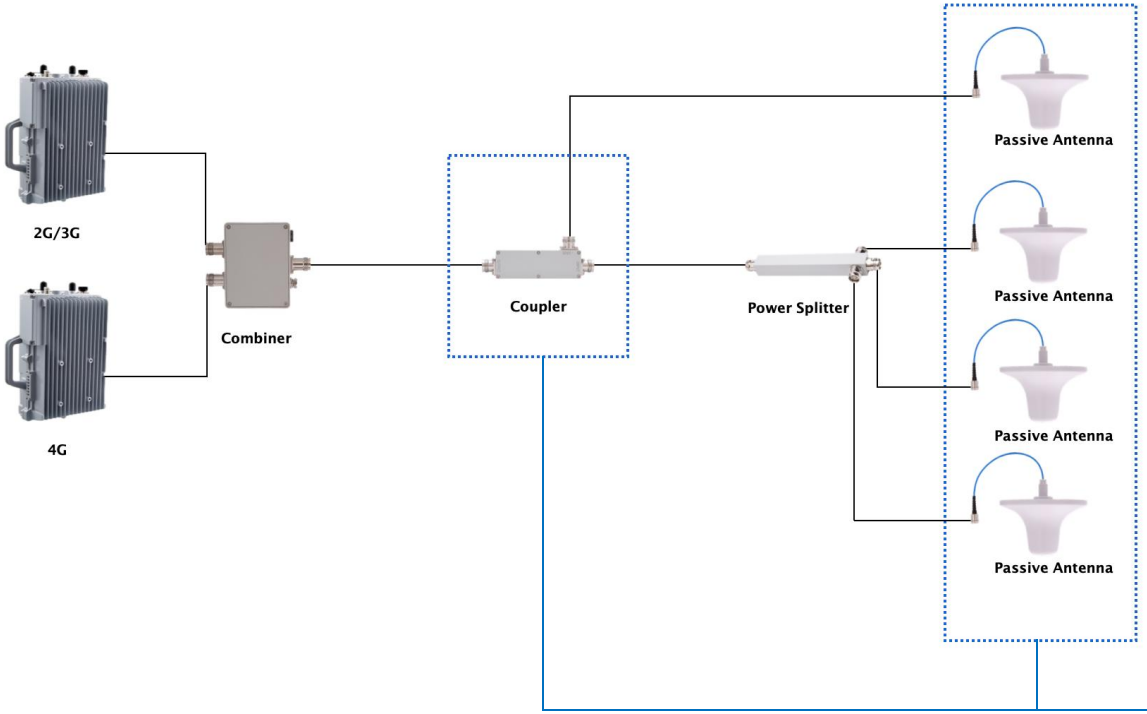
3-Steps Transformation

1. Add master units
2. Replace coupler by a DC feeder coupler
3. Replace passive antennas by remote units

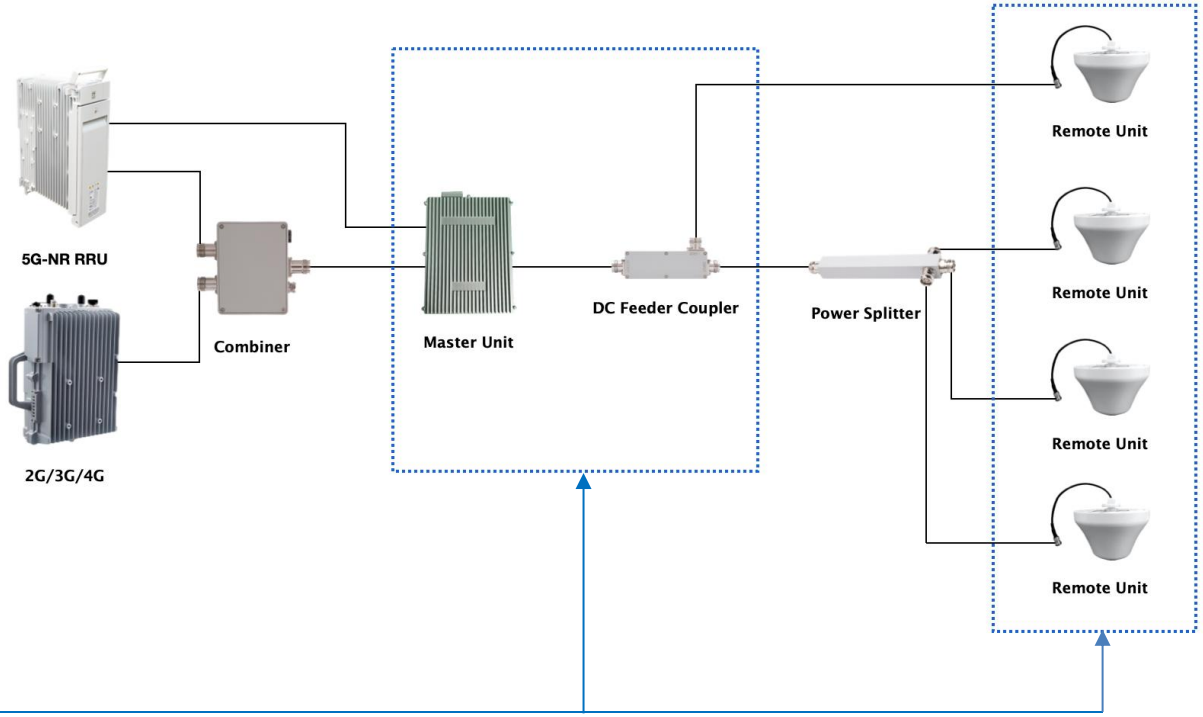
Leverage existing coaxial infrastructure to:

- *Enable full 5G MIMO 2T2R/4T4R performance*
- *3-day rapid deployment*
- *Match optical DAS speeds at 70% lower CAPEX*
- *Maintain seamless 3G/4G backward compatibility*
- *Remote monitoring and control*

Existing passive DAS



RFCOM's 5G coverage systems



Addition and Replacement

Network Structure Comparison

Comparison

	Passive DAS System	RFCOM's 5G Coverage System	Optic Digital DAS System
Description	Using two channels of coaxial cables	Replace some parts of the existing DAS to Implement 5G MIMO 2T2R	New pRRU distribution system
Construction period	Long	Short	Long
Difficulty in construction	High	Low	High
Difficulty in property coordination	High	Low	High
Antenna monitoring	✗	✓	✓
2T2R download rate	500M-600M	500M-600M	600M-700M
Cost per sqm(Assuming)	$1	$1	$5
Power consumption	Low	Low	High

Competitive Advantages

- Cost Efficiency:

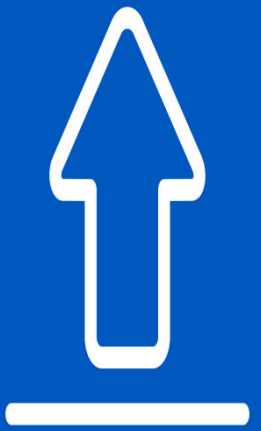
  Slash deployment costs by 70% and power consumption by 60%.
- Performance:

  Match optical digital DAS speeds at a fraction of the cost.
- Agility:

  Deploy in 3 days vs. month for traditional systems.
- Sustainability:

  Smart energy-saving modes reduce idle power to <1W per unit.
- Future-Proof:

  Unified platform for 2G/3G/4G/5G coexistence.



How does it achieve this function?

Key Technologies

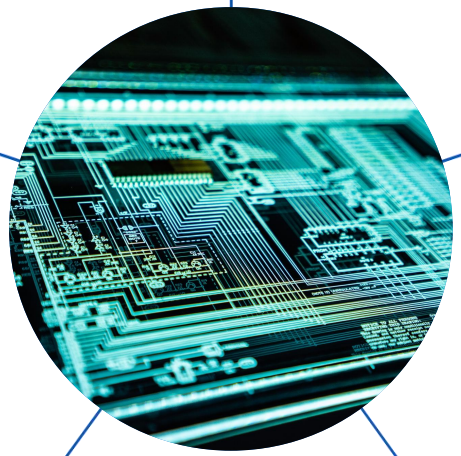
1 5G Signal Frequency Shift

2 Automatic Power Balancing

3 Dynamic Compensation of Output Power

4 Intelligent Energy Saving Management

5 Intelligent Network Management Platform

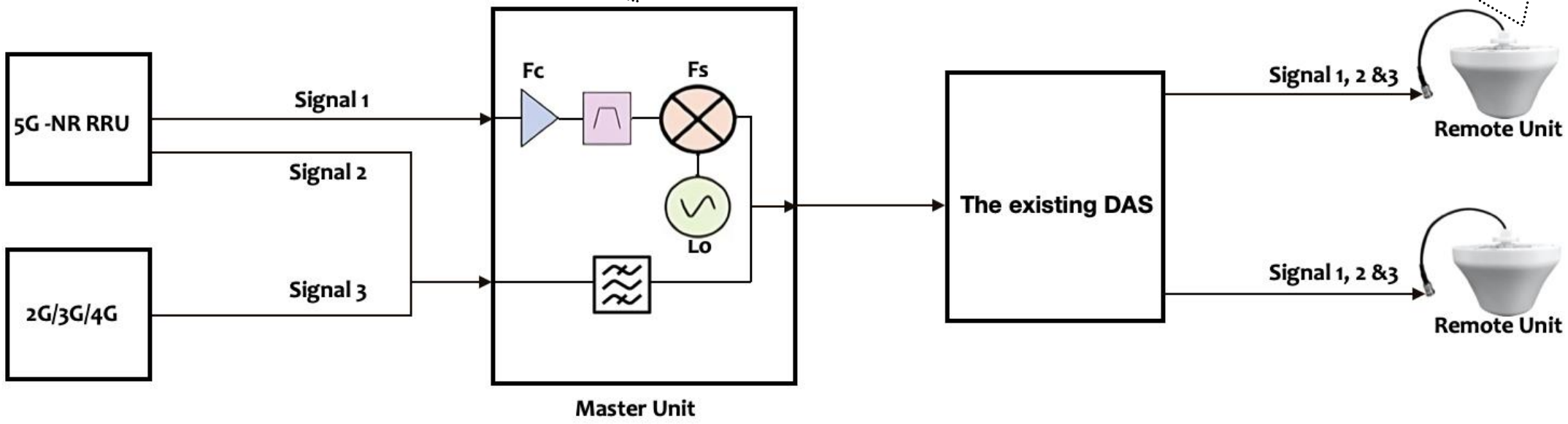


Key Technologies

5G Signal frequency shift

- Shift the frequency of Signal 1 into medium frequency
- Combine signal 1, signal 2 and signal 3
- Transmit the combined signals into the existing DAS system via a single coaxial cable

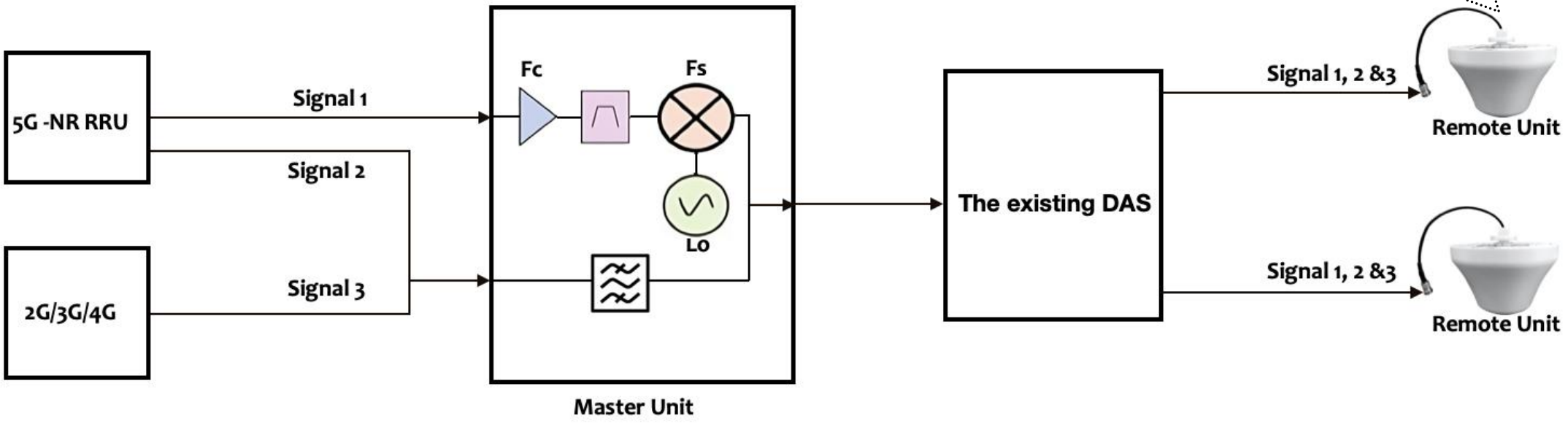
- Signal 1 will be restored to high frequency at Remote Unit to achieve 2T2R
- Signals 2 and 3 will keep being transmitted without transformation



Key Technologies

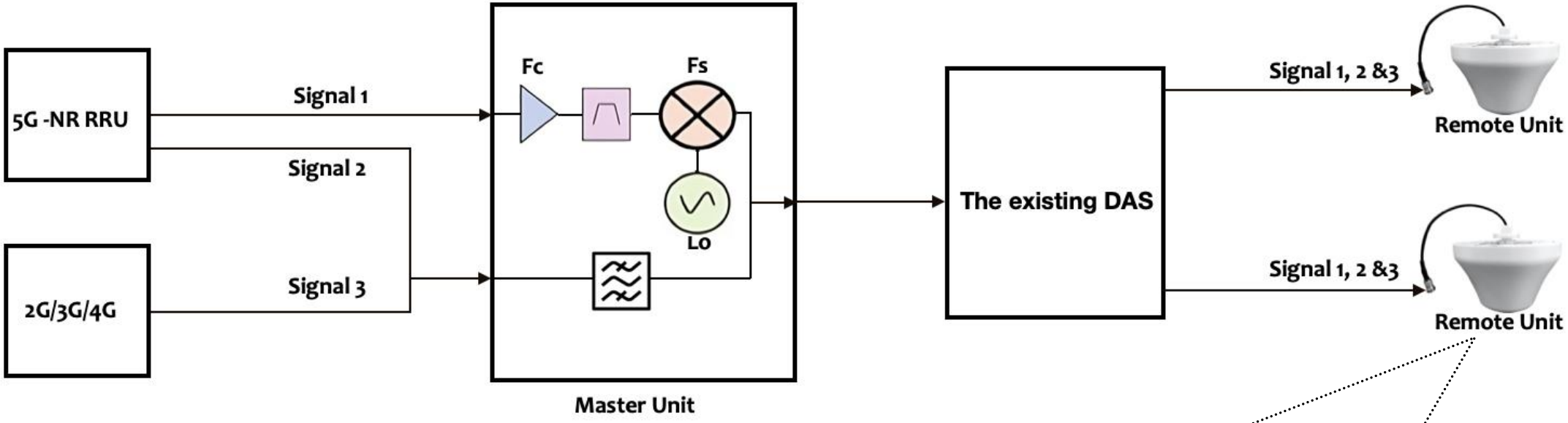
Automatic power balancing

- Remote Units will detect the signal level of signal 1 and signal2 and automatically balance them within 1dB power difference



Key Technologies

Dynamic compensation of output power of remote units



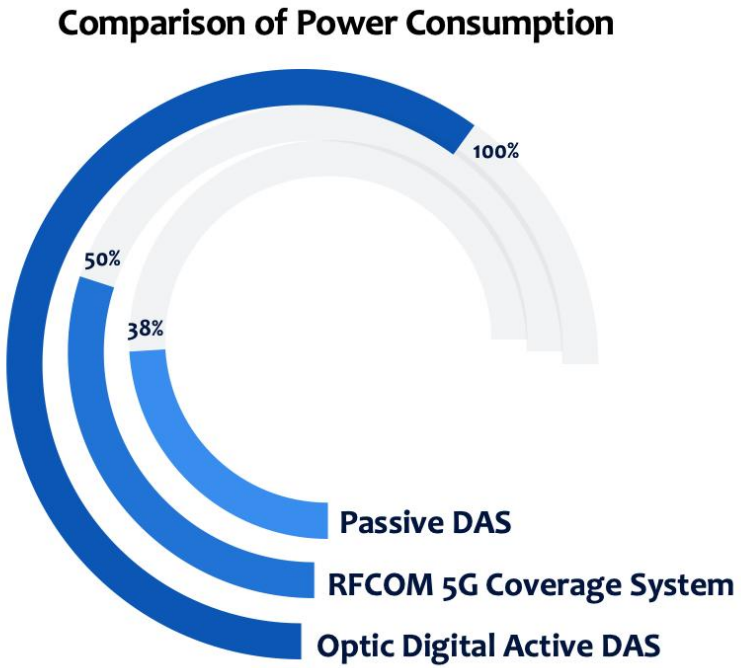
- Power compensation is available at Remote Units in order to compensate the transmitting loss, especially the signal 2, which is transmitted at higher frequency

Key Technologies

Intelligent Energy Saving Management

Smart Power Saving Mode

- The frequency-shifting channel can be automatically shut down when the traffic flow is low. The power at Remote Unit is less than 1w.
- When the traffic flow is higher than the threshold, the 5G frequency-shifting channel is automatically turned on to achieve MIMO effect. The power at Remote Unit is less than 4w.
- The power consumption of the master unit which is fully loaded is less than 15W.



Key Technologies

Intelligent Network Management Platform

Intelligent Network Management Platform

Device Access	Site Map	Device Layout
Visual Monitoring Center	Alarm Management	Polling Self-test
Operation & Maintenance Management	Intelligent Function	Device Version Management

Project for China Telecom

Site Information

Building Area

The building area 2500 sqm

Existing DAS: One single coaxial cable + eight pieces of passive antennas

5G Signal Resource

Frequency band: 3400MHz-3600MHz

5G RRU: Huawei 5262

Network Speed

UL: 20.8Mbit/s

DL: 125Mbit/s

Project for China Telecom

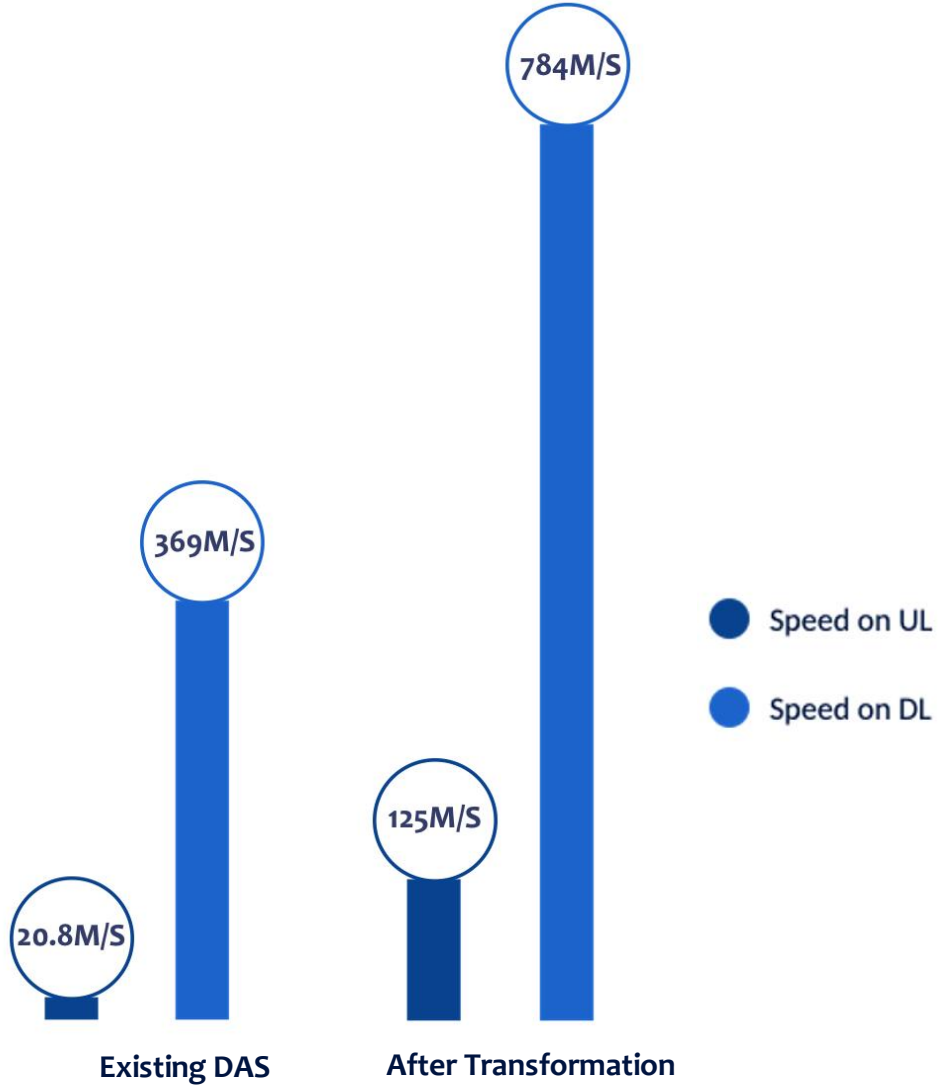
Solution

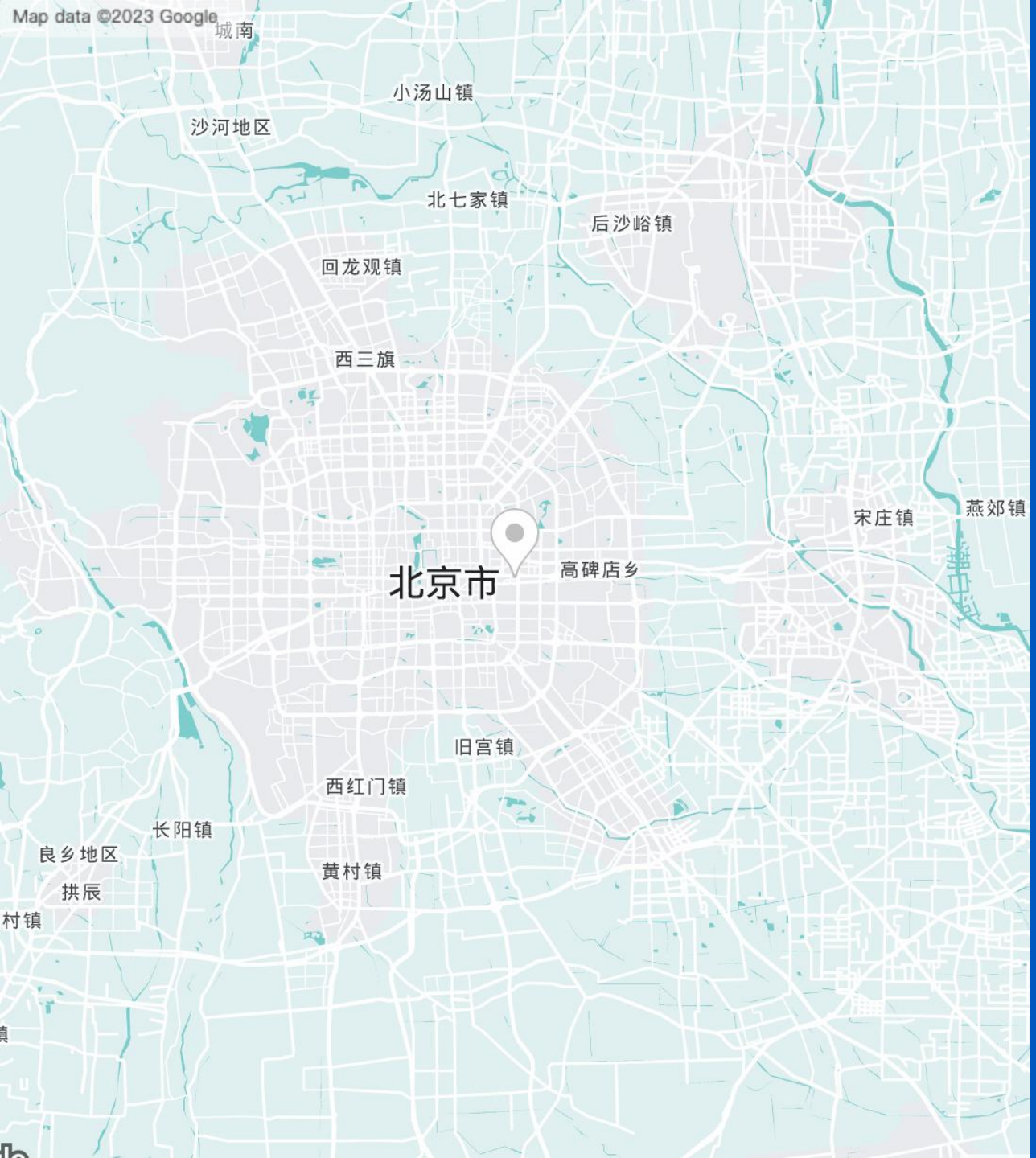
Actions	Materials	Quantity
Remove	Passive Antennas	8
Remove	10dB Couplers	4
Add	Master Unit	1
Add	3.5GHz Combiner	1
Add	40dB Coupler	1
Replace	Remote Units	8
Replace	10dB DC Feeder Coupler	1

Project period: 3 days

Project for China Telecom

Result





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