

Mobile Fronthaul Installation and Inspection

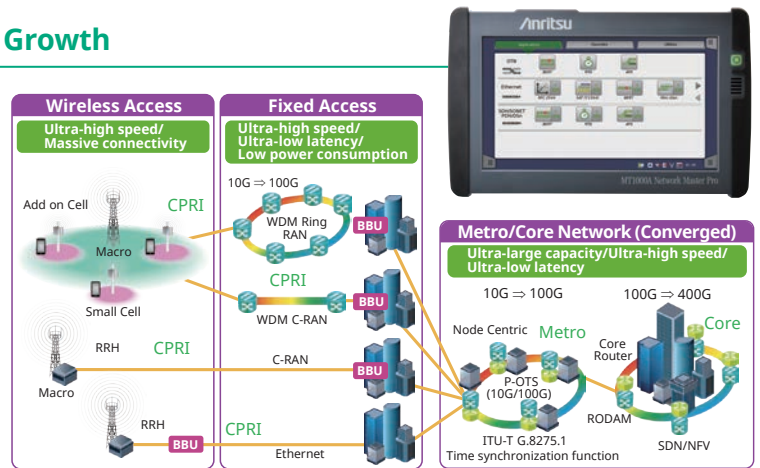
Network Master Pro MT1000A



Measurements Supporting Mobile Network Growth

To support the spread of mobile services, operators are pushing forward with installation of Small Cells supplementing coverage in areas that conventional high-output mobile cell towers do not easily serve, such as inside buildings and in underground malls, etc., where radio waves do not reach. Consequently, operators are investigating various types of Centralized-RAN (C-RAN) networks using CPRI with efficient Small Cells deployed as the Mobile Fronthaul. On the other hand, as increasing network complexity, operators consider using of the Automatic Protection Switching (APS) function used by Transport networks (TDM Networks).

With its built-in CPRI interface, the MT1000A supports both analysis of CPRI Frames and APS measurements of CPRI networks required at network installation and inspection, and that contribute for effective CPRI mobile fronthaul network I&M.



■ I&M Tests using CPRI Network Monitoring

Various signal frequencies are defined in the the CPRI standard; operators choose the best frequency according to the installation environment and communications traffic volumes to configure the network. The MT1000A has a built-in CPRI interface based on these CPRI-defined frequencies, supporting easy network monitoring using alarm analyses, transmission delay measurements, and passthrough connections. The compact lightweight portable MT1000A design supports efficient testing even in tight spaces, such as at Small Cell I&M.

CPRI Bit Rate (**Bold** : MT1000A supports)

Bit Rate Option	Line Bit Rate	Line Cording
Option 1	614.4 Mbit/s	8B/10B
Option 2	1228.8 Mbit/s	8B/10B
Option 3	2457.6 Mbit/s	8B/10B
Option 4	3072.0 Mbit/s	8B/10B
Option 5	4915.2 Mbit/s	8B/10B
Option 6	6144.0 Mbit/s	8B/10B
Option 7	9830.4 Mbit/s	8B/10B
Option 7A	8110.08 Mbit/s	64/66B
Option 8	10137.6 Mbit/s	64/66B
Option 9	12165.12 Mbit/s	64/66B
Option 10	24330.24 Mbit/s	64/66B

■ Evaluating APS Function at CPRI Network Faults

CPRI network installations demand high quality and accuracy to assure good frequency synchronization and short transmission delays. In order to provide the high quality service and install the base station efficiently, operators is considering that the CPRI APS function is effective as a mechanism to restore the network instantly from network failure. MT1000A which provides CPRI APS measurement function as network switching time monitor and Pass/Fail decision contributes to the network design and service quality management.