

Automatic Test Equipment for S-Band Central Unit (ATE for SBCU)

PRODUCT DESCRIPTION

Automatic Test Equipment for S-Band Central Unit (ATE for SBCU) is a platform to validate the integrated system functionality (RF and digital), execute unit level test cases and support incremental system integration and testing. Primary goal of the ATE for SBCU is to support and provide a platform to execute all the test cases listed for acceptance testing and qualification testing.

There are pre-defined test cases with input and expected-output arguments that are tested for with the help of this ATE. The ATE executes the test cases with the help of test scripts and generates the reports in the expected format.

The S-Band Central Unit has a hybrid backplane which supports RF as well as high speed digital signals. The external world signals which interface with Shop Replaceable Unit (SRU)/ cards terminate on backplane connector.

KEY FEATURES

- Integrated RF & digital testing environment which can monitor
 - Inputs
 - Outputs
 - Intermediate results
- Measureable parameters
 - RF output power
 - Spurious
 - Phase difference
 - Harmonics
 - Ethernet performance
 - MIL-STD-1553B interface
 - RS422 interface
 - LVDS interface
 - sFPDP interface
- System level & unit testing capability
- No manual intervention required for testing of SBCU
- Capable of running 15000 test cases (measurements) automatically in < 1 hour
- SCPI commands for communication with test & measurement equipment
- Capable of interfacing additional equipments via Ethernet port
- One click generation of test reports along with graph

SPECIFICATIONS

Hardware Architecture

The following are list of sub-modules ATE for SBCU

- ATE PC
- Test & measurement equipments
- SBCU(DUT)
- Ethernet switch
- RF switches
- Power supply

Interfaces

- LXI interface for communication with test & measurement equipments
- Capable of interfacing with non-LXI LAN equipments which supports SCPI commands

Software / IP

Following is the list of software modules of ATE

- Test console application running in ATE PC, allows execution of the test cases as defined in the ATP and QTP
- Test automation application running on computing board, to service the commands originated from the ATE PC console, by default this application listens on Ethernet port and services the PC console commands

Expansion Slots

- Capable of interfacing additional equipments via Ethernet port

MECHANICAL

- 19" rack mountable test & measurement equipments

POWER INPUT

- Input voltage is 230V AC

ENVIRONMENTAL

- Temperature range : To be used in controlled temperature environment

PART NUMBER(S)

CT1020	Automatic Test Equipment for S-Band Central Unit (ATE for SBCU)
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