BASE STATION
EMULATOR
TEST SYSTEM

MODEL NUMBERS:

18A4NAE (A-G)
18A4NAF (A-U)

UMTS
&
GSM Systems

"BTS/Node B Applications"

Renaissance Electronics has developed Switch Matrices Base Station Emulators to support a software-based test system to solve capacity and coverage problems.

These emulator systems allow companies to conduct unique testing within their labs by allowing switching between multiple systems and equipments. An example is the 18ANAE GSM system that provides the ability to take any one of the 84 input signals and then can be directed to any one of the five layers, each with 7 individual outputs.

Characteristics

Parameter	18A4NAE (A-G)	18A4NAF (A-U)
Frequency:	GSM 900 (UL: 890–915 MHz, DL: 935-960 MHz) GSM 1800 (UL: 1710–1785 MHz, DL: 1805-1880 MHz)	UMTS 1900 (UL: 1920-1980 MHz, DL: 2110-2170 MHz)
Number of Inputs:	84	60
Number of Outputs:	35	25
Number of Input Groups:	12	12
Number of Inputs Per Group:	7	5
Number of Switch Planes (AT):	5	5
Number of Inputs Per Plane:	84	60
Number of Outputs Per Plane:	7	5
Impedance:	50 Ω	50 Ω
VSWR:	1.4:1	1.4:1
IMD 3rd Order (-20dBm/12 Ports):	-100 dBc (min)	-100 dBc (min)
Isolation:	60 dB (min)	60 dB (min)
Input Power:	+23 dBm (max)	+23 dBm (max)
Interface Control:	RS-485	RS-485
Connector (Input & Output):	N-female	N-female
Temperature:	0 to +50ºC	0 to +50ºC

RENAISSANCE ®
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Features	*Benefits*
· 84 x 35 Input/Output Ports for GSM · 60 x 25 Input/Output Ports for UMTS	· Pre-set for GSM & UMTS
· VSWR < 1.38:1 · Isolation > 90 dB	· Low Distortion Between Input Signals due to very High Isolation
· Packet Protocol · RS-485 Interface	· RS485 Controller and Custom Packet Protocol Provides Robust Interface which is Suitable for Noisy Environments
· LabVIEW Driver	· Built-in LabVIEW Driver which can be Custom Tailored to Specific Requirements
· Programmable and Remotely Controlled	· Can be Customized for other Input/Output Combinations
· Long-Life Switches	· Low Maintenance, High Reliability