

50Ω

The Big Deal

- Flexible mechanical switch system
- USB and Ethernet Control
- Full software support
- All configurations shipped in 2-3 weeks!

Typical Applications

- Automated production testing
- Laboratory testing / R&D
- Cellular fading / handover tests
- Component characterisation / qualification

Product Overview

Mini-Circuits' RCM-100 series multi-channel programmable attenuator systems offer flexibility and fast turnaround for compact test setups. The design consists of a small, light-weight chassis comprising up to three open hardware windows, providing a choice of programmable attenuator options, with exceptionally fast turnaround time:

- 4 - 6 programmable attenuator channels
- 0 to 30, 60, 90 or 110 dB attenuation range per channel (1 - 6000 MHz)
- 0 to 120 dB attenuation range per channel (1 - 4000 MHz)
- Models up to 8 GHz also available on request

With the use of Mini-Circuits' low cost Hand-Flex™ interconnect cables, multiple matrix configurations can be easily created by the user.

The system can be controlled via USB or Ethernet (supporting both HTTP and Telnet network protocols). Full software support is provided and can be downloaded at any time from https://www.minicircuits.com/softwaredownload/ztm_rcm.html. The package includes our user-friendly GUI application for Windows and a full API with programming instructions for Windows and Linux environments (both 32-bit and 64-bit systems).

Key Features

Feature	Advantages
User configurable test system	Specify the precise attenuation configurations required in your test setup
Fast turnaround time	2-3 weeks from order to shipment allows test configuration to be rapidly updated without causing production delays.
Compact half-rack chassis	Compact, light-weight design enables easy bench-top use. Shelving in a standard 19-inch equipment rack accommodates two RCM units side by side.



Included Accessories

CBL-3W1-XX	AC power cord (see ordering information)
AC/DC-24-3W1	AC/DC 24 V power adapter
USB-CBL-AB+	USB cable (2.7 ft.)
HT-4-SMA	SMA cable connector wrench

RoHS Compliant

See our web site for RoHS Compliance methodologies and qualifications

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Configuration

The RCM-100 Series switch platform contains three open hardware windows, each of which may be specified with 1 to 2 of the following attenuator models:

- 0 to 30 dB range, 0.25 dB step size, 1 to 6000 MHz
- 0 to 60 dB range, 0.25 dB step size, 1 to 6000 MHz
- 0 to 90 dB range, 0.25 dB step size, 1 to 6000 MHz
- 0 to 110 dB range, 0.25 dB step size, 1 to 6000 MHz
- 0 to 120 dB range, 0.25 dB step size, 1 to 4000 MHz
- Additional models up to 8 GHz are also available on request

View the full range of options on our website at:


<https://www.minicircuits.com/WebStore/rcm.html>

Step 1: Choose your configuration

Step 2: Enter your contact details

Step 3: We will be in touch within 24 hours!

RCM Series - Modular Test Systems
Configured and Built to Order in 2-Weeks or Less!



Product Overview
Documentation
Software
Request a Quote

Step 1 of 3: Configure Your Test System

RCM 200 Series
Multi-Function Switching Systems
Populate each window of your system using the drop down menus below.

View Switching Selection

RCM 100 Series
Multi-Channel Programmable Attenuator Systems
Select your desired systems by entering a quantity of 1 or greater in the appropriate field below.

View 4 Channel Attenuator Selection

View 6 Channel Attenuator Selection

RCM Series - 6 Programmable Attenuator Channels

Model Name	Channels	Performance per Channel			Quantity
		Frequency	Attenuation	Step Size	
RCM-30-6	6	1 - 6000 MHz	0 - 30 dB	0.25 dB	<input type="text"/>
RCM-60-6	6	1 - 6000 MHz	0 - 60 dB	0.25 dB	<input type="text"/>
RCM-100-6	6	1 - 6000 MHz	0 - 95 dB	0.25 dB	<input type="text"/>
RCM-110-6	6	1 - 6000 MHz	0 - 110 dB	0.25 dB	<input type="text"/>
RCM-120-6	6	1 - 4000 MHz	0 - 120 dB	0.25 dB	<input type="text"/>

Included accessories:

- AC power cord (please select region): ▼
- USB control cable - 6.8 ft (USB-CBL-AB-7+)
- Ethernet control cable - 5 ft (CBL-RJ45-MM-5+)
- Full software & documentation (including GUI, DLL API files, user & programming manual)

Model Selection Guide

Model Name	Channels	Attenuator Component*	Performance per Channel		
			Frequency	Attenuation	Step Size
RCM-30	4	RCDAT-6000-30	1 - 6000 MHz	0 - 30 dB	0.25 dB
RCM-60	4	RCDAT-6000-60	1 - 6000 MHz	0 - 60 dB	0.25 dB
RCM-100	4	RCDAT-6000-90	1 - 6000 MHz	0 - 95 dB	0.25 dB
RCM-110	4	RCDAT-6000-110	1 - 6000 MHz	0 - 110 dB	0.25 dB
RCM-120	4	RCDAT-4000-120	1 - 4000 MHz	0 - 120 dB	0.25 dB
RCM-30-6	6	RCDAT-6000-30	1 - 6000 MHz	0 - 30 dB	0.25 dB
RCM-60-6	6	RCDAT-6000-60	1 - 6000 MHz	0 - 60 dB	0.25 dB
RCM-100-6	6	RCDAT-6000-90	1 - 6000 MHz	0 - 95 dB	0.25 dB
RCM-110-6	6	RCDAT-6000-110	1 - 6000 MHz	0 - 110 dB	0.25 dB
RCM-120-6	6	RCDAT-4000-120	1 - 4000 MHz	0 - 120 dB	0.25 dB



*See individual component data sheets at www.minicircuits.com for full specifications and performance data



Mechanical Specifications

Dimensions	8.25" (w) x 4.25" (h) x 8.25" (d); mounting feet add 0.28" height
Case	Aluminum with protective coating
Front Panel	SMA female for all RF connections
Rear Panel	a) Power ON/OFF switch with indicator light b) 24 V DC Input c) USB type B connector for local control d) RJ45 LAN jack for Ethernet control
Operating Temp	+5 to +45 deg C

Software & Documentation Download:

- Mini-Circuits' full software and support package including user guide, Windows GUI, DLL files, programming manual and examples can be downloaded free of charge from <https://www.minicircuits.com/WebStore/rcm.html>.
- Please contact testsolutions@minicircuits.com for support

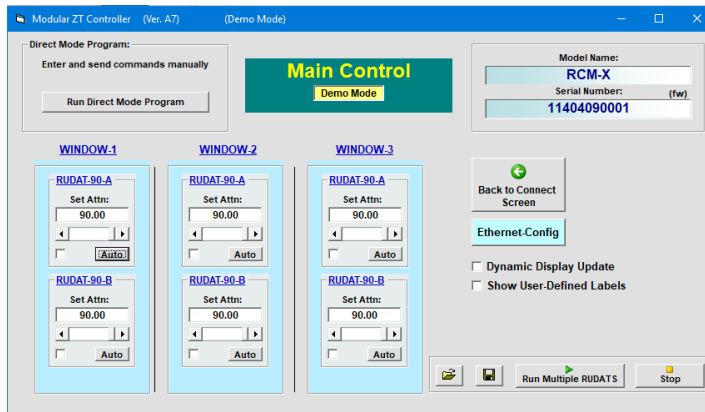
Minimum System Requirements:

Parameter	Requirements	
Interface	USB HID & Ethernet (HTTP Get / Post & Telnet)	
System Requirements	GUI	Windows 98 or later
	USB API DLL	Windows 98 or later and programming environment with ActiveX or .NET support
	USB interrupt API	Linux; Windows 98 or later
	Ethernet	Windows, Linux or Mac computer with a network port and Ethernet TCP / IP support
Hardware	Pentium II or later with 256 MB RAM	

Graphical User Interface (GUI) for Windows

Key Features:

- Control via USB or Ethernet
- Set individual programmable attenuator channels
- Configure timed sweep / hop sequences for any combination of channels
- Configure Ethernet settings
- Configure initial attenuation states on power-up



Application Programming Interface (API)

Ethernet Support:

- ASCII commands via HTTP or Telnet
- Supported by most common programming environments

USB Support (Windows):



- ActiveX COM DLL file for creation of 32-bit programs
- .NET library DLL file for creation of 32 / 64-bit programs
- Supported by most common programming environments (refer to application note [AN-49-001](#) for summary of supported environments)

USB Support (Linux):

- Full control in using USB interrupt commands

Ordering, Pricing & Availability Information see our web site

Model	Description
RCM Series	USB/Ethernet Modular Test System

Included Accessories	Part No.	Description
	AC/DC-24-3W1	AC/DC 24V _{DC} Grounded Power Adaptor. Operating temperature: 0°C to +40°C, I _{Max} =2.5A
	CBL-3W1-XX	AC Power Cord (Select one power cord from below with each Switch Matrix box)
	USB-CBL-AB-3+	2.7 ft (0.8 m) USB Cable: USB type A(Male) to USB type B(Male)

AC Power Cords ⁶	Part No.	Description
	CBL-3W1-US	Power Cord for United States
	CBL-3W1-EU	Power Cord for Europe
	CBL-3W1-UK	Power Cord for United Kingdom
	CBL-3W1-AU	Power Cord for Australia and China
	CBL-3W1-IL	Power Cord for Israel

⁶ Power cords for other countries are also available, if you need a power cord for a country not listed in the table please contact testsolutions@minicircuits.com.

Optional Accessories	Description
USB-CBL-3+ (spare)	2.7 ft (0.8 m) USB Cable: USB type A(Male) to USB type B(Male)
USB-CBL-7+	6.8 ft (2.1 m) USB Cable: USB type A(Male) to USB type B(Male)
USB-CBL-11+	11 ft (3.4 m) USB Cable: USB type A(Male) to USB type B(Male)
CBL-RJ45-MM-5+	5 ft (1.5 m) Ethernet cable: RJ45(Male) to RJ45(Male) Cat 5E cable

Additional Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp