

RF INTERCONNECT SOLUTIONS FOR

HOME AUTOMATION

As smart home devices and IoT technology becomes increasingly prevalent in daily life there is a pressing need to modernize traditional home infrastructure. Home automation introduces a new era of household management by integrating advanced sensors, connectivity solutions and AI-driven control systems in order to enhance convenience. This evolution demands updated communication protocols and innovative automation components.

Amphenol RF provides a diverse range of interconnect solutions to facilitate seamless communication between smart devices and end-users. These versatile RF products support efficient energy management, personalized control and real-time monitoring to enable a connected living space.



TECHNOLOGIES

- Wireless Communication (Wi-Fi, BT, Zigbee, Z-Wave)
- Cameras and Image Recognition
- Smart Grid Technologies
- Robotics and Automation Systems
- Artificial Intelligence (AI) and Machine Learning

CORE COMPETENCIES

- Waterproof IP67/68 sealed and extreme exposure solutions ideal for harsh environments
- Ruggedized products offering dust, vibration, and corrosion resistance
- Custom cable assemblies and sub-systems
- Customized high-speed board level interconnects
- Customized hybrid solutions supporting RF, signal and power

Home Automation Applications

Wireless Controlled Smart Home Appliances

Wireless controlled smart home appliances enable remote monitoring and operation of household devices for enhanced convenience and efficiency.

- Smart hubs
- Voice assistants
- Smart appliances
- Entertainment devices



Embedded Chip Antennas



FPC/PCB Antennas

Home Security

Home security systems utilize cameras, sensors, and alarms to safeguard property and provide real-time monitoring and alerts for intrusion detection.

- Smart locks
- Video doorbell camera
- Security camera



FPC/PCB Antennas



External Antennas

Home Robotics

Home robotics employ autonomous machines to assist with tasks like cleaning and entertainment, enhancing the automation and functionality of a smart home.

- Robot cleaner
- Pet robot
- Lawn mowing robot
- Housework robot



NFC Antennas



N-Type

Smart Energy Management

Smart energy management optimizes heating, cooling, and power usage through intelligent systems, promoting energy conservation and cost savings.

- Smart Lighting
- Smart HVAC Management
- Smart Utility Monitoring



BNC



AMC

APPLICATION MATRIX

SERIES	IMPEDANCE				
		WIRELESS CONTROLLED SMART HOME APPLIANCES	HOME ROBOTICS	SMART ENERGY MANAGEMENT	HOME SECURITY
AMC	50 Ohm	●	●	●	●
AMC4	50 Ohm	●	●	●	●
AUTOMATE Mini-FAKRA	50 Ohm		●		●
BNC	50 & 75 Ohm	●		●	
FAKRA	50 Ohm		●		●
HD-BNC	50 & 75 Ohm	●		●	
HD-EFI	50 Ohm	●		●	
MCX	50 & 75 Ohm	●	●	●	
MMCX	50 Ohm	●	●	●	
N-Type	50 Ohm	●	●	●	
SMA	50 Ohm	●	●	●	●
TNC/RP-TNC	50 Ohm	●	●	●	
External Antennas	50 Ohm			●	●
FPC/PCB Antennas	50 Ohm	●	●		●
NFC Antennas	50 Ohm	●	●		
Embedded Chip Antennas	50 Ohm	●			

Also Available

**Fixed Length Cable Assemblies**

Pre-configured cable assemblies featuring common connector and cable configurations available in standard lengths.

**Adapters**

Designed for applications requiring two RF interfaces (between-series or in-series) to be connected together.