



Government of Barbados

**This Policy is in accordance with Sections 4(b) and
4(f) of the Telecommunications Act 2001-36**

**Barbados Short Range Devices
(SRD's Policy Objectives)**

21 July 2003



Barbados Short Range Devices (SRD's) Policy Objectives

Policy in accordance with sections 4 (b) and (4) of the Telecommunications Act 2001-36.

Introduction

The Telecommunications Unit (TU) in the Ministry responsible for Telecommunications will prepare Technical Specifications for SRD's.

This document outlines the objectives of the SRD policy and ensures that these devices are not subjected to over regulation.

Spectrum

The development of spectrum allocations for short range devices is an ongoing policy review process. The Ministry will revise and update its frequency allocations for short range devices as new technologies emerge.

Conditions for use and sale of Short Range Devices

Generally, short range devices are exempted from licensing if the transmitter output power is below the maximum approved field strength or power as indicated in Table 3. The exception to this:-

- Citizen Band (CB)
- Walkie Talkies
- Radio Control of Models and
- Spread Spectrum devices

Short range devices have to be approved by the Ministry before they can be used or put on sale in Barbados. Companies seeking approval must also have a local presence and possess a Telecommunications Sellers and Dealers Licence issued by the Ministry.

Annex I outlines Short Range Devices currently prescribed for use in Barbados.

SHORT RANGE DEVICES

1. Introduction

- 1.1 The term “Short Range Devices” (SRD) is intended to cover radio transmitters that have a localised area of operation due to their low output power (i.e. generally 100 mW or less). These include radio-communication equipment such as radio microphones, cordless phones, remote control devices, etc.
- 1.2 Short Range devices could be used virtually everywhere and they operate on a wide range of frequencies. Such devices are, however, permitted to operate on a non-interference and non-protection basis. That is, they must share-use the frequencies with other radio applications and they must not cause interference to other radio-communication networks duly authorised by the Ministry.
- 1.3 The following paragraphs illustrate the common spectrum allocation for individual applications and the general operating conditions as well as the specific conditions for Short Range Devices.

2. Spectrum Allocations

- 2.1 The Ministry allocates the spectrum for short range devices based on ITU-R Radio Regulations, the availability of equipment in the market and any international standards. The frequency bands made available for short range devices are indicated in Table 3 below.

Table 3

Application	Operating Frequency Band	RF Output Power (Watts)	Field Strength (dB(µV/m))
Cordless Telephone (CT-0)	a) 1.605 - 1.800	-	94 @ 3m
	49.50 - 50.00	-	94 @ 3m
	b) 46.50 - 47.00 49.50 - 50.00	- -	90 @ 3m
Citizen Band Walkie Talkie	26.695 - 27.405	0.4	65 @ 10m
Wireless Microphone	a)i) 0.51 - 1.60	-	i) 57@ 3m
	ii) 40.66 - 40.70	-	ii) 65 @10m
	iii) 88.00 - 108.00	-	iii) 60 @ 10m
	b) 181.210 - 184.510	-	60 @ 10m
	c) 455.850 - 455.950	-	60 @ 10m

Application	Operating Frequency Band (MHz)	RF Output Power (Watts)	Field Strength (dB(µV/m))
Medical and Biological Telemetry Devices	a) 40.500 – 41.000	-	20 @ 15m
	b) 454.000 – 454.500	-	54 @ 30m
On-site Paging Services	26.96 – 27.28 40.68	3	-
VHF On-site Paging Service	151.125 151.150	3	-
Induction Loop	0.016 – 0.150	-	100 @ 3m
Wireless Video Transmitter	630 – 710 2400 – 2483.5	-	76 @ 3m
Remote Control Devices	a) 26.96 – 27.28	0.5	65 @10m
	b) 29.70 – 30.00 (aircraft & glides)	0.5	-
	c) 29.87 – 30.00 (telemetry devices, fire & security alarm, remote control of machines)	0.5	-
	d) 170.275 – 173.675 451.750 – 452.325 (cranes & loading arm	1	-
Radio Detection & Alarm System	a) 0.016 – 0.150	-	100 @ 3m
	b) 146.350 - 146.500 240.150 – 240.300 300.000 – 300.300 314.700 – 315.000 444.500 – 444.800 868.100 – 869.000	-	65 @ 10m
	c) 13.5530 – 13.5670	-	94 @ 10 m
	d) 10500 – 10550	-	117 @ 10m
Wireless Data Communication	18825 – 18865 19165 – 19205	0.1	-
Wireless Modem	a) 72.080 – 72.600	1	-
	b) 158/162	1	-
	c) 453/458	1	-
Spread Spectrum System	2400 – 2483.5 902 – 928	0.1	-
Radio Equipment and Devices	a) 433.790 – 434.790		
	b) 924 - 925		

Application	Operating Frequency Band (MHz)		RF Output Power (Watts)	Field Strength (dB(µV/m))
Short Range Radar System	76000-77000	in motion	5	-
		Stationary	0.2	

2.2 The following provides a general description of the various categories of SRDs and the respective Type Approval Specifications that they may fall into:

1	<i>Cordless Telephone (CT-0)</i>
A cordless telephone is telephone terminal equipment, which is connected to a normal exchange line or an extension line and is integrated with or accompanied by a normal telephone set in the telephone network.	
2	<i>Citizen Band Walkie-Talkie</i>
A two-way communication device which operates in the Citizen Band of frequencies. The mode is usually half-duplex which is push to talk, release to listen. Its communications range is from one to five miles.	
3	<i>Wireless Microphones</i>
Radio microphone is defined as a microphone that uses a radio link to convey speech or music to a remote receiver.	
4	<i>Medical and Biological Telemetry Devices</i>
A medical and biological device shall include a transmitter and its associated receiving equipment, which is used to transmit, within a restricted area, via radio frequency field, measurements of either human or animal biomedical phenomena to a receiver.	
5	<i>On-site Paging Service</i>
On-site paging service is a one-way selective signaling system, which may incorporate tone paging or combined speech/tone paging.	
On-site paging service means the radio signals emitted from the transmitter must be restricted within the confine of the licensee's compound or in specific area or site as may be approved by the Ministry.	

6	<i>VHF On-site Paging System</i>
On-site paging service means the radio signals emitted from the transmitter must be restricted within the confine of the licensee's compound or in specific area or site as may be approved by the Ministry.	
7	<i>Induction Loop</i>
An induction loop communication system is a system in which the radio frequency energy is conducted or guided along wires or in cables (e.g. Induction loop paging) and the field radiated by wire or cable is limited, giving a typical range between cable and receiving equipment of 30 meters.	
Induction loop communication systems may be used in a building or limited area of a factory site which is under the control of the system user.	
8	<i>Wireless Video Transmitter</i>
It is mainly to be used for controlling or monitoring purposes.	
9	<i>Radio Telemetry and Telecommand Equipment</i>
Telemetry - The use of telecommunications for automatically indicating or recording measurements at a distance from the measuring instrument.	
Telecommand - The use of telecommunication for the transmission of signals to initiate, modify or terminate functions of equipment at a distance (e.g. radio control of models, automatic garage door openers, etc).	
10	<i>Radio Detection and Alarm Systems</i>
Radio detection system (e.g. field disturbance sensor) is a movement detection device which is used to give warning of intrusion by activating an alarm or sending a coded signal to a receiving device to identify the source of emission.	
Radio alarm system (e.g. short range fire detection & alarm system, anti-theft alarm device) is an alarm system which uses radio signals to generate or indicate an alarm condition or to set or unset the system.	
11	<i>Wireless Data Communication Systems</i>
A wireless data communication (e.g. wireless LAN) is a radio-communication system used for transmission of data between computers installed within a building.	
12	<i>Wireless Modem</i>
A wireless data communication system (e.g. wireless modem and LAN) is a radiocommunication system used for transmission of data from a computer to remote terminals installed within a building.	

13	<i>Spread Spectrum System</i>
A spread spectrum system is defined as a radiocommunication system used for transmission of data/voice within a building using spread spectrum techniques.	
14	<i>Radio Equipment and Devices</i>
The radio equipment shall transmit and/or receive within the designated band and be used within a building.	
15	<i>Short Range Radar System</i>
A short range radar system is a movement and position detection device which is used to give a warning of collision by identifying the delay between a transmitted pulse and a return pulse.	

3. Other Devices

(i) Bluetooth/2.45 GHZ

Bluetooth is a Personal Area Network (PAN) technology to connect wireless equipment such as computers, mobile phones and portable devices within a short distance of about 10m and supporting a data rate of 1 Mbps.

The Ministry will approve the use of Bluetooth enabled devices operating in 2400-2483.5 MHz, limiting the power (EIRP) to 100 mW.

(ii) Radio Local Area Networks (RLANs)/5GHz

Radio Local Area Networks (RLANs) include networks using IEEE802.11 and HiperLAN standards. The Ministry has allocated the band 5250-5350 MHz for wireless access systems including RLANs subject to a power of 100mW.

(iii) Radio Frequency Identification (RFID)

RFID system uses low power radio signals to transfer data between an RFID tag and an RFID reader. The Ministry is seeking feedback from the ICT industry to gauge the demand before allocating frequencies for use by (RFID).