

Specific Absorption Rate (SAR) Test Report
for
Arima Communication
on the
Single Band Phone – GSM 1900
Model Number: Arima M2001C

Test Report: 20395891
Date of Report: February 16, 2001

Job #: J20039589
Date of Test: February 4, 2001

Total No of Pages Contained in this Report: 23 + Data Sheets



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Review Date: <u>02/25/01</u>		

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1.0 Job description

1.1 Client Information

The Arima M2001C has been tested at the request of

Company: Arima Communication
6th Fl., No 349 Jen Ho Road,
Taoyuan, Taiwan
Republic of China

Name of contact: Mr. Rong Ho

Telephone: (86) 755-9502 ext. 112/119

Fax: (86) 755-9502 ext. 115

1.2 Equipment under test (EUT)

Product Descriptions:

Equipment	Single Band Cellular Phone		
Trade Name	Arima Communication	Model No	Arima M2001C
FCC ID	N/A	S/N No.	N/A
Category	Portable	RF Exposure	Uncontrolled Environment
Frequency Band	1860 – 1910 MHz	System	GSM 1900 (PCS)

EUT Antenna Description			
Type	Monopole	Configuration	Fixed
Dimensions	26mm (L)	Gain	0 dBi
Location	Top, Right		

Use of Product : Voice Communication

Manufacturer: SAME as above.

Production is planned: Yes, No

EUT receive date: February 4, 2001

EUT received condition: Good working condition prototype

Test start date: February 4, 2001

Test end date: February 4, 2001

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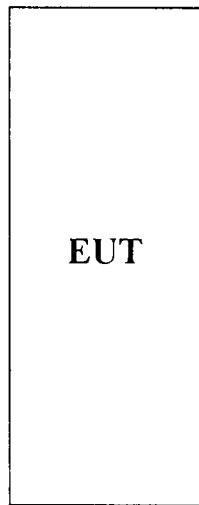
1.3 Test plan reference

FCC rule part 2.1093, FCC Docket 96-326 & Supplement C to OET Bulletin 65

1.4 System test configuration

1.4.1 System block diagram & Support equipment

The diagram shown below details test configuration of the equipment under test.



1.4.2 Test Position

The Arima M2001C was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in C95.1 (1992) and Supplement C of OET 65 (1998). The EUT was placed in the intended use position, i.e. CENELEC 80° position. This position is defined by a reference plane and a line. The reference plane of the head is given by three points, the auditory canal opening of both ears and center of the closed mouth. The reference line of the EUT is defined by the line, which connects the center of the ear piece with the center of the bottom of the case and lies on the surface of the case facing the phantom. The reference line of the EUT lies in the reference plane of the head. The center of the ear-piece of the EUT is placed at the entry of the auditory canal. The angle between the reference line of the phone and the line connecting both auditory canal openings is 80°. Please refer to figure 1 below for the position details:

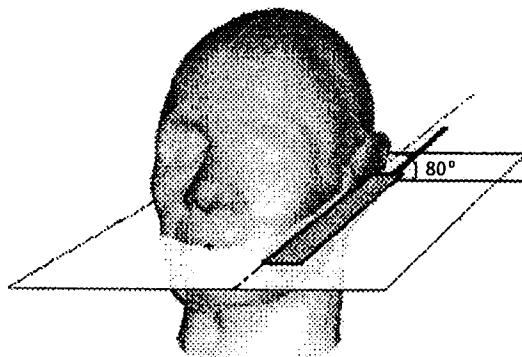


Figure 1: Intended use position

Additionally, the EUT was tested in a second position from the normal 80° angle between the reference line of the phone and the line connecting both auditory canal openings. The center of the ear piece of the EUT is placed at the ~~entry~~ of the auditory canal. The angle between the reference line of the phone and the line connecting both auditory canal openings was adjusted from 80° to the angle where two points of the phone were in contact with the phantom (ear hole and cheek).

Data pages indicate the position of the EUT during testing. The first position of 80° has data pages labeled '1 point touch'. The second position has data pages labeled '2 point touch'.

The left and right hand sections of the phantom were used for measuring the low, middle, and high channels in the 1 point touch and 2 point touch positions.

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1.4.3 Test Condition

During tests, the worst case data (max. RF coupling) was determined with following conditions:

EUT Antenna	Fixed length	Orientation	80°
Usage	Left Hand & Right Hand	Distance between antenna axis at the joint and the liquid surface	17.5mm
Simulating	Brain & Muscle	EUT Battery	Fully Charged battery
Power output -	1850.2 MHz, Ch 512: 32.0 dBm		
Maximum power at antenna port	1880. MHz, Ch 661: 31.6 dBm		
	1909.6 MHz, Ch 810: 31.0 dBm		

The spatial peak SAR values were accessed for lowest, middle and highest operating channels defined by the manufacturer.

Antenna port power measurement was performed by manufacturer.

1.5 Modifications required for compliance

No modifications were implemented by Intertek Testing Services.

1.6 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standard.

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2.0 SAR EVALUATION**2.1 SAR Limits**

The following FCC limits for SAR apply to devices operate in General Population/Uncontrolled Exposure environment:

EXPOSURE (General Population/Uncontrolled Exposure environment)	SAR (W/kg)
Average over the whole body	0.08
Spatial Peak (1g)	1.60
Spatial Peak for hands, wrists, feet and ankles (10g)	4.00

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2.2 Configuration Photographs

SAR measurement Test Setup

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2.2 Configuration Photographs (Continued)

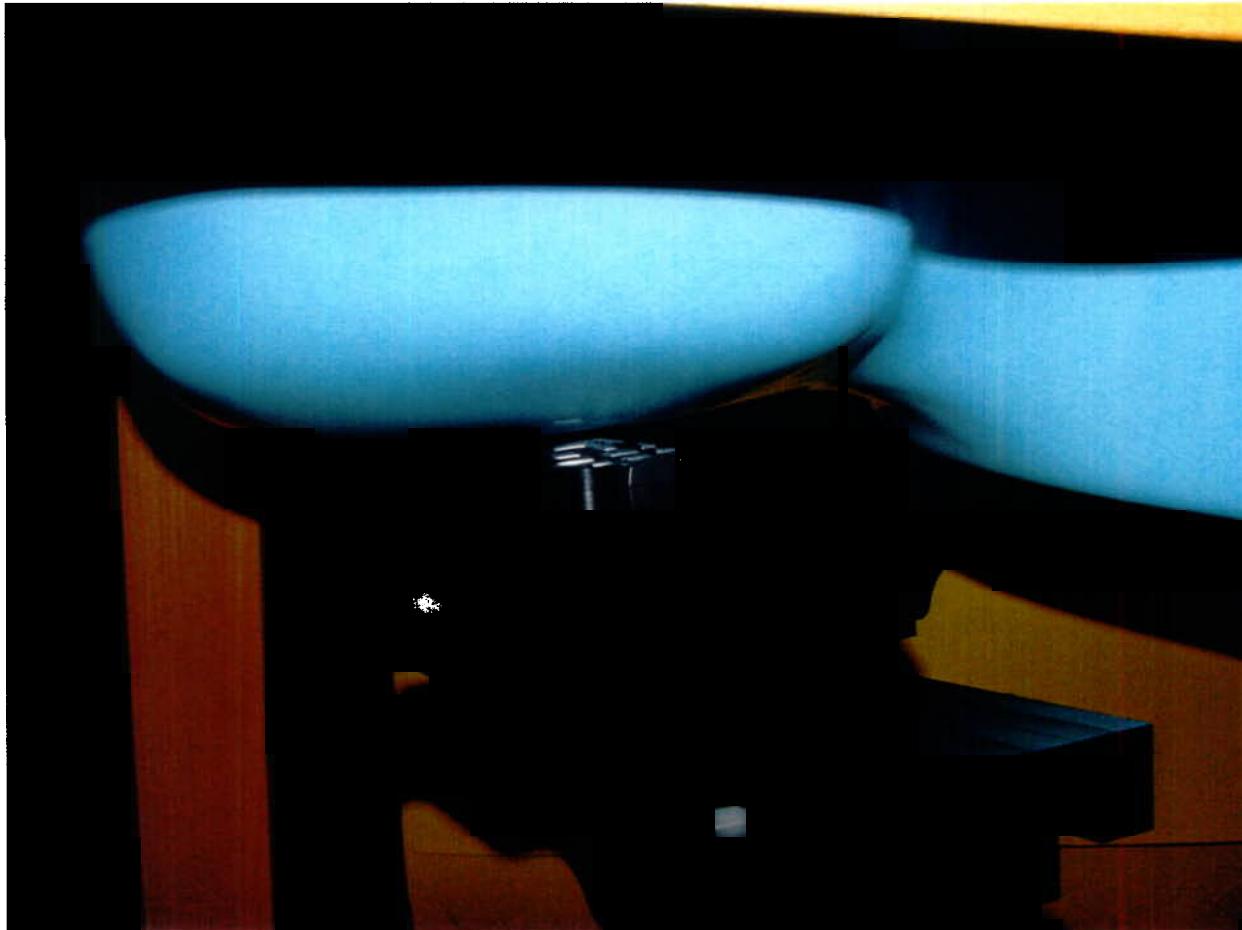
SAR measurement Test Setup

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2.2 Configuration Photographs (Continued)

SAR measurement Test Setup



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SAR measurement Test Setup