

1. The RF output power stated for the radio in Exhibit 12.1.A is not an ERP rating. In accordance with 47 CFR 2.985(a), it is the power that is measured at the RF output terminals using the normal tune-up procedure for the handset radio as described in Exhibit 10. However, when supplied to users the radio lacks these output terminals because users receive the radio with a retractable antenna, as shown in the photograph of Exhibit 9. In the field the antenna is detached and a unique servicing adapter inserted for RF measurements. In our engineering tests conducted RF measurements were performed instead with an adapter comprised of an SMA series connector attached to a semi-rigid coaxial cable soldered to the radio circuit board assembly, as shown in Exhibit 7, Photographs 7-1 through 7-4. This adapter is listed as item 20 in the test equipment list of Exhibit 7.7.

This readily correlated conducted RF measurement and specification (rather than ERP methodology) is used because it facilitates maintenance of RF exposure compliance in radio production as well as in field service.

2. The head set-up photos in figure 1A & 1B show the iDEN 1000Plus unit. This unit the same type that was shown in Exhibit 3 of the Certification application. The unit appears to be thicker because of the photo angle and lighting limitations.

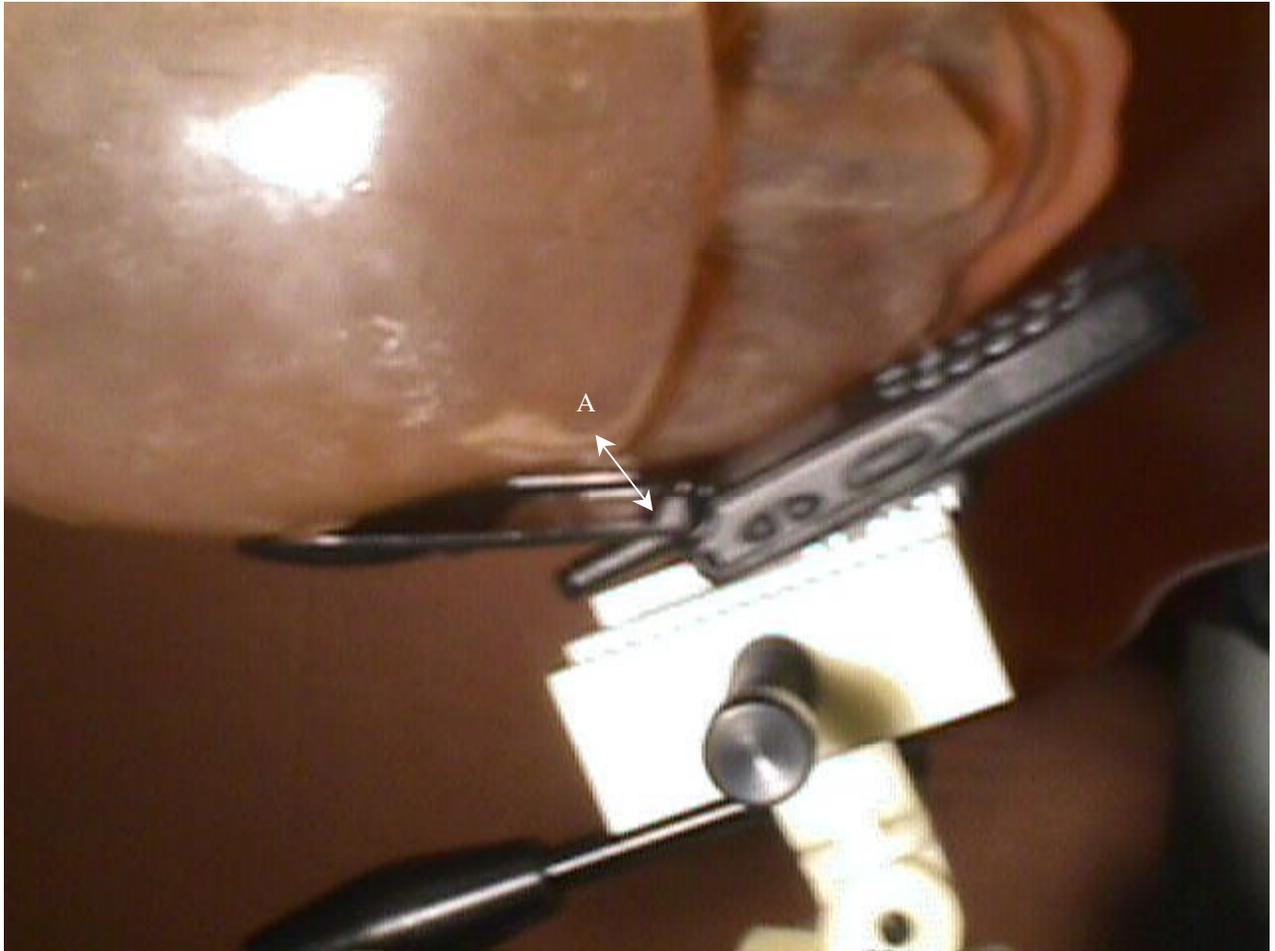
To further confirm the above, we are submitting new photos of the unit.



FIG. 1B HEAD POSITION - RIGHT EAR

←=====  
(+x Axis)

====>  
(-x Axis)



Radio with antenna retracted & thick battery (NTN8614A)

DIM A = Distance from surface of antenna base to phantom head = 14mm

Legend: Torso filled with simulated brain tissue on non RF support fixture and radio affixed to head.

(+y) Axis is out of the page, toward viewer and (-y) Axis is into the page, away from viewer.

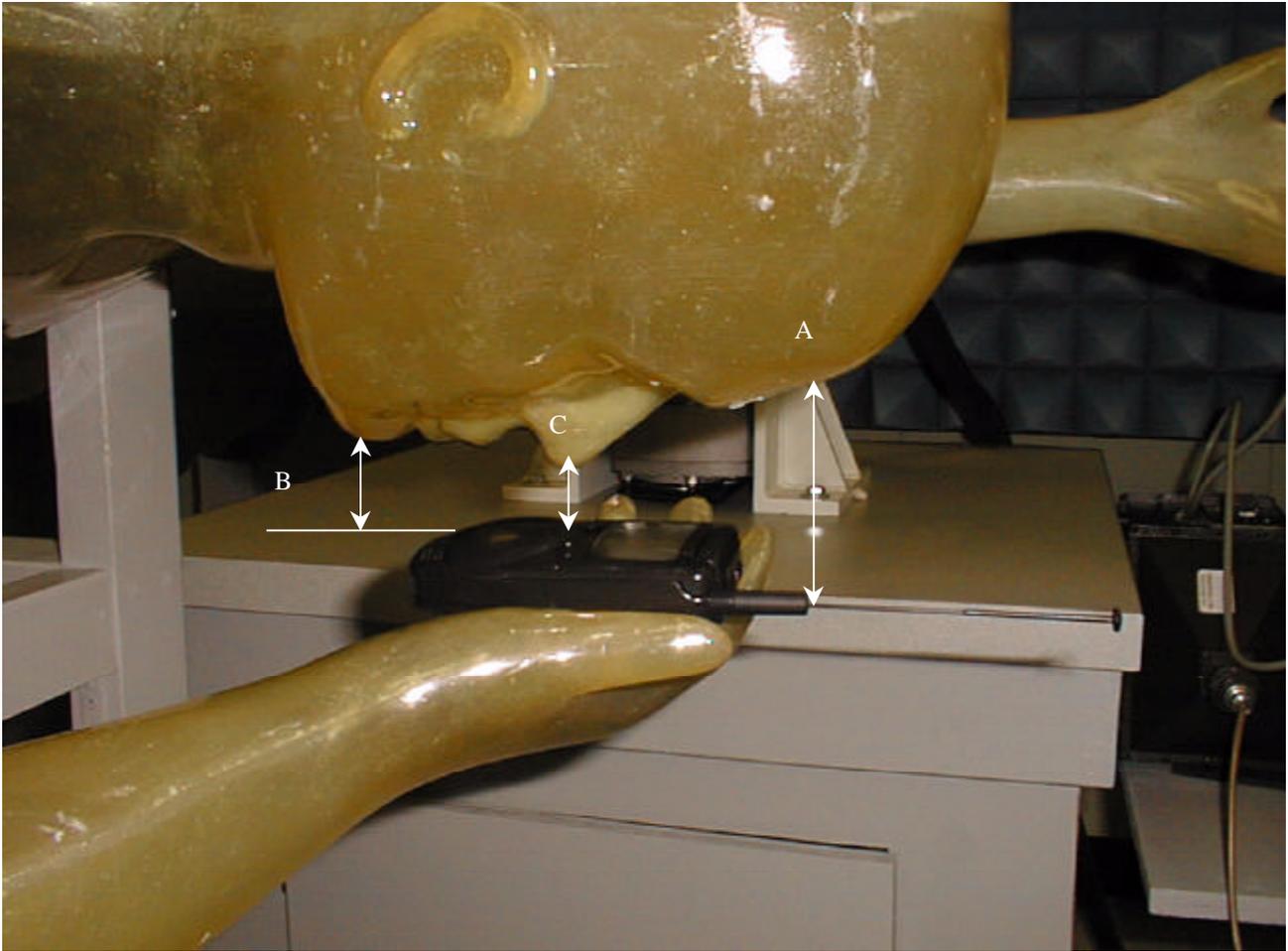
3. The standard operating position usage of the radio is 2.5cm ~5cm (1 ~ 2 inches) separation distance between the radio microphone and the user's lips. This is stated in our User's Manual Safety and General Information page, and it is stated that the user should read the information before using the integrated multi-service portable radio. The phantom's palm in which the radio is positioned to perform the test is fixed. This is shown in photo in Fig. 2, which shows the test set up configuration for dispatch (6:1 ratio) mode. When the radio was tested with the thickest battery option, the separation distance between the tip of the phantom's nose and the radio case was actually 2.1 cm and thus constitutes the smallest distance for the device.

In the standard operating position of operation, the body of the radio does not touch the user's nose. Dispatch mode uses 6:1 multiplexing. When operated in this mode, the radio is normally located in the facial position as described in section 1.5(2).

FIG. 2 FACIAL POSITION

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(+x Axis)

====>  
(-x Axis)



Radio in phantom's palm with thick battery (NTN8614A)

DIM A = Distance from center of phantom's forehead to antenna surface when the antenna is in the retracted position = 70 mm

DIM B = Closest distance between phantom's chin and radio surface = 35 mm

DIM C = Closest distance between phantom's nose tip and radio surface = 21 mm

Legend: Lay down full body phantom filled with simulated muscle tissue on non RF support fixture and radio in phantom's palm.

(+y) direction is out of the page, toward viewer and (-y) direction is into the page, away from viewer.

4. The radio is typically worn on the body with the use of a holster with belt clip that provides at least a 2.5cm (1 inch) separation distance between the radio antenna and the user's body. The holster with belt clip supports the manual's recommended minimum 2.5cm (1 inch) separation distance between the radio's antenna and the user when the radio is worn on the body.

The radio can transmit while worn on the body with the holster and belt clip by means of an interface connector located at the bottom of the radio and with the use of audio accessory devices (e.g. headset, ear piece with microphone, etc.) to operate the radio in dispatch (6:1 ratio) mode.

The radio is not operated on the body while in 3:1 or 1:1 multiplexing modes.

