

**Assessment Notes by BABT as TCB for the a Permissive Change Class 2 for the
Intermec 730 Pocket Computer
with 802.11 and Bluetooth™ modular radios.**

For Intermec Technologies Corporation under FCC ID number EHA-802F13

BABT file number US/000058

I have reviewed the TÜV-PS SAR test reports WS611453-01-s1 and WS611453-001 issue 2 in respect of the above product and I have the following comments:

The expanded measurement uncertainty is shown on page 11 of the report WS611453-001 issue 1 at 20.57% respectively, which is acceptable for this kind of measurement. The body simulant fluid was correctly calibrated within 5% of the target values and the measurements were taken within 100MHz of the calibrated frequency of the fluids, which was 2450MHz.

Important note to FCC reviewer:

The device is a portable computer intended to be normally hand-held and used for data entry applications. The device can also be used close to the head for telephone style applications and it can also be used with a headset. The device incorporates an 802.11 RLAN card and optionally a Bluetooth™ radio module. The permissive change involves a relay of the RLAN module but the FCC ID number has not been changed. The separate, worst-case SAR values from the various reports are summarised below.

SAR Test position	Channel number	Frequency (MHz)	Max Spot (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	TCB decision
Head RH side 15°	11	2462	1.05	0.832	0.446	PASS (Report WS611453 - 01 Figure 23)
Headset LH Cheek	6	2437	0	0.003	0.001	PASS (Report WS611453 - 01 Figure 25)
2 mm – side touch Front top	6	2437	1.09	0.856 0.796*	0.440 0.428*	PASS (Report WS611453 - 01 Figure 27)
Bluetooth Left cheek – module side	Top	2480	0.060	0.042	0.020	PASS (Report WS611453 - 02 Figure 21)
Bluetooth 2mm touch module side	Middle	2441	0.050	0.033	0.017	PASS (Report WS611453 - 02 Figure 23)
Limit for general population (uncontrolled exposure) 1.6 W/kg (1g) and 2.0 W/kg (10g)						

*results obtained in report WS611453-01-s1 for Permissive change

Justification:

The maximum measured SAR values for the RLAN are obtained at 2437 MHz are 0.856 W/kg for 1g averaging. After the permissive change this is reduced to 0.796 W/kg. This is less than the limit for the general population of 1.6W/kg averaged over 1g. The maximum SAR values obtained for the Bluetooth™ module occurs in different orientations and frequencies than those positions for which the maximum values are obtained for the RLAN. Even if the Bluetooth™ values are added to the RLAN values the absolute maximum value of SAR would not exceed 0.9 W/kg for 1g averaging. Also it should be noted that these results are obtained under CW mode working which will not occur in practice.

The device will normally be hand-held but could be held close to the head for telephone style applications and also used with a headset. No special training is required to use the device to limit RF exposure therefore this equipment has been tested for general population usage. When carrying the device the user will either hand carry the equipment or use a belt-clip, which contains no metal parts and maintains a distance of 1.0cm from the users body. It is viewed that this device DOES MEET the SAR requirements for a body-worn device for use by the general population even allowing for worst-case measurement uncertainties. Appropriate Grant conditions have been applied to this submission.

I confirm that I have undergone SAR awareness training by the FCC at the TCB Council workshops in August 2001, February 2002, April 2002 and October 2002.



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13th January 2004