# ROGERS LABS, INC.

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January 11, 2001

Federal Communications Commission
Equipment Approval Services
P.O. Box 35815
Pittsburgh, PA 15251-3315

Applicant: INTERMEC TECHNOLOGIES CORPORATION
6001 36th Avenue West
Everett, WA 98203-9280
Phone: (505) 856-8054

RE: Correspondence Reference Number: 17505

Equipment: FCC ID: HN21555-900

Gentlemen:

Please find enclosed the response to request for additional information regarding the submittal for grant of certification of Intentional Radiators operated in the frequency range of 902 – 928 MHz. It has been requested that the information contained in the block diagrams, operational description and schematics of the application be held confidential per Section 0.459.

A copy of the information request has been reproduced here for reference.

To: Scot Rogers, Rogers Labs, Inc.
From: Joe Dichoso
jdichoso@fcc.gov
FCC Application Processing Branch

Re: FCC ID HN21555-900
Applicant: Intermec Corporation
Correspondence Reference Number: 17505
731 Confirmation Number: EA98687

The RF safety review is pending.
The only other item is whether or not the device meets the definition of a FHSS system. We are on the "lookout for TAG readers that send only a CW signal to the TAG. These do not meet the definition as they do not meet the have a carrier that is modulated with information and the information is written to the tag.
Please describe the information that is modulated onto the the carrier and verify that the information is written to the TAG.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 60 days of the original e-mail date may result in application dismissal pursuant to Section 2.917 (c) and forfeiture of the filing fee pursuant to section 1.1108.

DO NOT reply to this e-mail by using the Reply button. In order for your response to be processed expeditiously, you must upload your response via the Internet at www.fcc.gov, Electronic Filing, OET Equipment Authorization Electronic Filing. If the response is submitted through Add Attachments, in order to expedite processing, a message which informs the processing staff that a new exhibit has been submitted must also be submitted via Submit Correspondence. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.

## *RESPONSE*

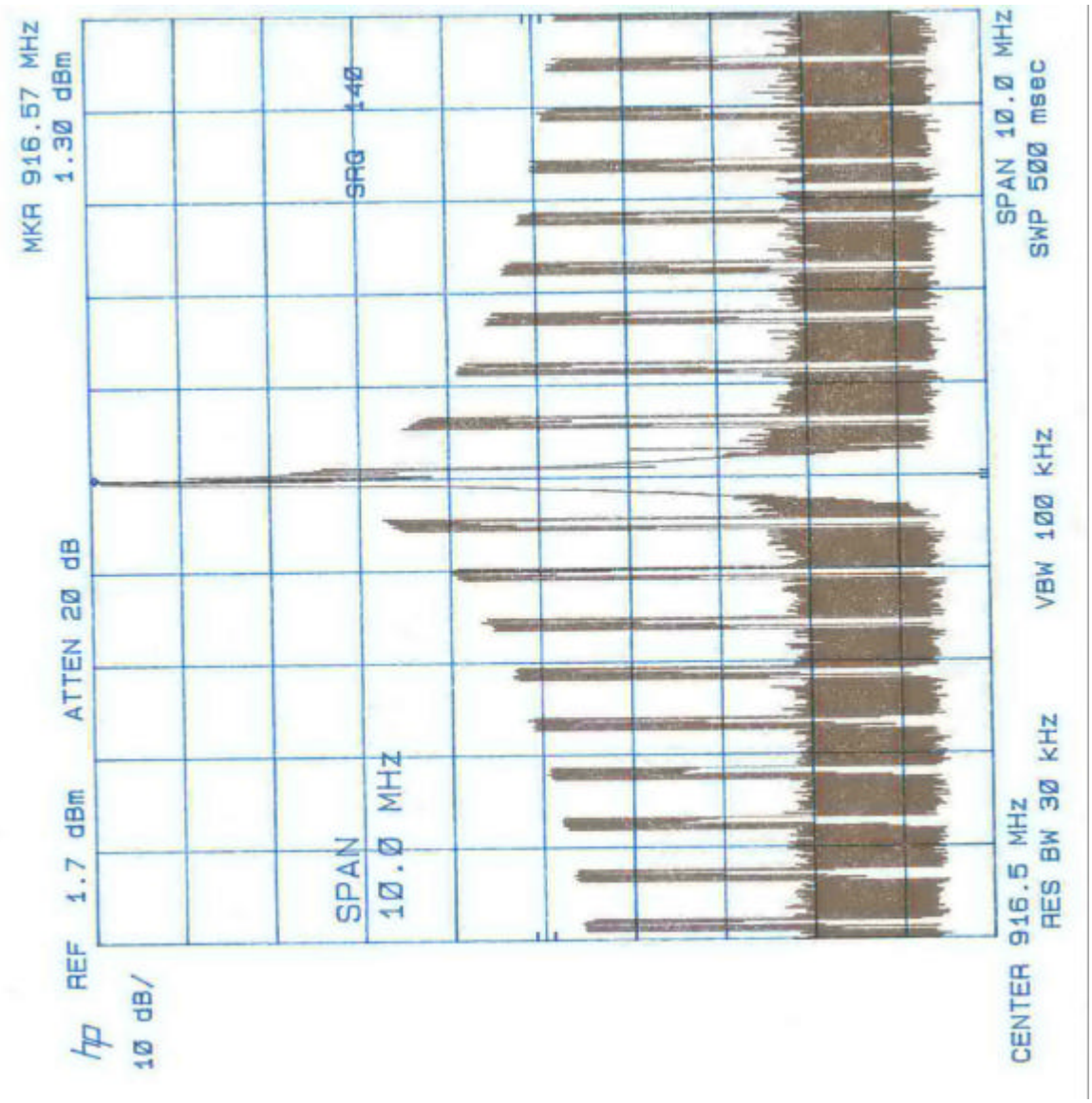
1. The device is a frequency hopping system and does transmit information to the tag. The operation of the unit and information included in the modulated signal is described below. In addition we have included a plot of the frequency spectrum with the modulated signal.

**"Please describe the information that is modulated onto the carrier and verify that the information is written to the TAG."**

The 1555 Hand Held RFID reader, combined with an Intellitag-500 tag, is a read/write 2-way RF communication system. For every command from the reader to the tag, a response is generated. Data can be written to the tag, or read from it. The tag data can be locked and unlocked.

For reader to tag communication (forward link) and writing data to the tag, a carrier is modulated with the desired data using an on-off key format. The RF field being on corresponds to a 1, while the RF field being off corresponds to a 0. The on-off ratio specification is 40dBc.

For tag to reader communication (return link), data is sent using backscatter techniques. The reader provides a CW signal to the tag during the return link While the reader powers the tag, the tag alternately opens and shorts its antenna connection, changing the effective impedance of the tag front end and thus changing the backscatter return of the tag to the reader.




Please use this corrected data and continue processing the application for a grant of certification.

Should you require any further information, please contact the undersigned.
Thank you for your consideration in this matter.
Sincerely,

Scot D Rogers

Scot Rogers
Rogers Labs, Inc.
Enclosures