Engineering Exhibit in Support of
Change of FCC ID Request
FCC Form 731

for the

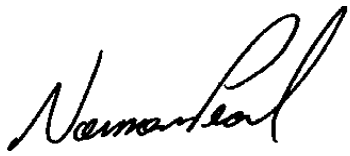
T837-20 Exciter+T839-20 PA modules of the transmitter of Tait's T83x VHF base station

Original FCC ID:CASTEL0002
Changed FCC ID:EOTBDD4T83-2

June 14, 2002

AFFIDAVIT

This report was prepared by engineers under my direction. To the best of my knowledge, all of the data is true and correct.



Norman D. Pearl
Vice-president Engineering, Dataradio Inc.

Dataradio Inc., Montreal, Canada

ENGINEERING STATEMENT
OF CONSTANTIN PINTILEI

The application consisting of the present engineering exhibit associated with the FCC form 731 has been prepared in support of a request for a Change in the FCC ID as per Section 2.933. Dataradio Inc requires a new FCC ID: EOTBDD4T83-2 for the Exciter module T83M-2Y already approved under the ID CASTEL0002.

The certificate CASTEL0002 was granted to Tait Electronics Ltd. for its basestation transmitter comprised of the T837-20 Exciter module and T839-20 Power Amplifier module on 10/29/1997. The Transmitter (Exciter+PA) belongs to the T83M-XY (see page 5 for part# description) VHF (136-174 MHz) base station. Dataradio Inc. buys this base station and uses it to build Paragon/PD, a wireless data base station. Dataradio Inc does the final assembly and markets the Paragon/PD unit.

For marketing purposes a Dataradio sticker with the logo has been affixed to the front panel and the new FCC ID label has been affixed to the rear side to cover the original FCC ID. Only the FCC information has been covered, all other identifications carried on the label (serial number, other certifications, manufacturer, etc) remain unchanged and available on the rear label.

This exhibit provides all the data required by the form 731 that is related to the FCC ID change request as per 2.933 (b). There are no changes in design, schematics, components, specifications or operating characteristics of the equipment involved with the current submission.

EXISTING CONDITIONS

The base station that supplied the exciter T837-20 and the PA T839-20 is regular production unit. The transmitter operates on frequencies ranging from 148.000 MHz to 174.000 MHz as granted in CASTEL0002.The frequency tolerance may be 0.00025% or 0.00015%, depending on the channel spacing option, as granted in CASTEL0002. The output power is 100W continuously variable down to 20-25% as granted in CASTEL0002 on 10/29/1997.

PROPOSED CONDITIONS

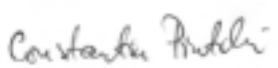
It is proposed to accept the change in FCC ID from CASTEL0002 to EOTBDD4T83-2 for the two modules T83M-2Y when used within Paragon/PD data base station, for operation in the band of frequencies previously outlined. The applicant anticipates marketing the device for use in wireless transmission of data.

EXHIBIT DATA

All data as per 2.933 (b) and 2.1033 (c) is provided in accordance with the Rules and Regulations Part 2 of Rules Service Co rev.161, Mar 15,2002. External Pictures of the equipment were made in the engineering laboratory located at 5500 Royalmount ave, Montreal, Canada on June 11-13,2002. All other data has been recorded by myself on Jun 13,2001.

CONCLUSION

Given the data contained herein, the applicant requests that the certificate for the new FCC ID: EOTBDD4T83-2 be granted.



6/14/2002

Constantin Pintilei
R&D Test Engineer, Dataradio Inc.

Qualifications of Engineering Personnel

NAME:	**Norman Pearl**
TITLE:	Vice-president Engineering
TECHNICAL EDUCATION:	Bachelor of Engineering (Electrical) (1979) McGill University, Montreal, Canada
TECHNICAL EXPERIENCE:	Professional engineer since 1979 24 Years experience in radio communications

NAME:	**Constantin Pintilei**
TITLE:	R&D Test Engineer
TECHNICAL EDUCATION:	Bachelor of Science Degree in Radiotechnique Electronic Engineering (1993) Technical University of Iasi, Romania
TECHNICAL EXPERIENCE:	Professional engineer since 2001 8 Years experience in radio frequency measurements

General Information About The Grantee And Certificated Equipment -2.1033 (c) (1)(2)(5)(6)(7)

APPLICANT FOR NEW ID	Dataradio Inc., 5500 Royalmount Ave, suite 200, Town of Mount Royal, Quebec, Canada, H4P 1H7
ORIGINAL GRANTEE	Tait Electronics Ltd., Burnside Christchurch 5, New Zealand
MANUFACTURER:	Tait Electronics Ltd., Burnside Christchurch 5, New Zealand (T83x UHF Base station) DATARADIO Inc., Town of Mount Royal, Quebec, Canada, H4P 1H7 (D212 BDLC and Paragon/PD- final assembly)
MODEL NUMBER: PART NUMBER:	Paragon/PD BDD4-83XY PPPS
SERIAL NUMBER (S):	T837-20-0200 s.n 706482 Exciter module T839-20-0200 s.n 422931 Power Amplifier module
FCC ID NUMBER: FCC RULES AND REGS:	CASTEL0002 FCC Part (s)22,90
FREQUENCY RANGE:	148 MHz -174 MHz as per CASTEL0002 certificate
MAXIMUM POWER RATING:	100 Watts as per CASTEL0002 certificate. (continuously variable down to 20%-25%)
NUMBER OF CHANNELS:	1 Channel selectable from 256 channels as per Tait's manual
OUTPUT IMPEDANCE:	50 ohms, Nominal
VOLTAGE REQUIREMENTS:	10.9-16.3VDC (13.6 VDC Nominal) as per Tait's manual

EQUIPMENT IDENTIFICATION:

TRADE NAME	**DESCRIPTION**	**DRI PART NUMBER**
T83x	136-174 MHz Base Station	T83M-XY
D212	Base Data Link Controller (BDLC)	050-03330-00x
Paragon/PD	Assembly	BDD4-83XY PPPS

Part Number of the Tait 800 MHz base station T88M-XY

M	Module Type	X	Freq Range	Y	Channel Bandwidth
7	Exciter (1W)	1	136-156 MHz	0	25 kz
5	Receiver	2	148-174 MHz	3	20 kHz
9	Power Amplifier			5	12.5 kz

Part Number of the Paragon/PD 800 MHz data base station BDD4 -83XY PPPS

X	Freq Range	Y	Channel Spacing	PPP	Transmitted Power	S	Supply
1	136-156 MHz	0	25 kHz	025	25W	0	external 12V
2	148-174 MHz	3	20 kHz	100	10W	2	dual 120V
		5	12.5 kHz				

Data And Characteristics Not Affected By The Change in FCC ID -Rule Part Number: 2.933 (b), 2.1033 (c) (3), (4), (8), (9), (10), (12), (13), (14), (15), (16)

The following data :

-instruction book (the original "T830 series II " Tait service manual issue 2.00 for the VHF base station is used).	2.1033 (c) (3).
-type of emission:	2.1033(c)(4)
-dc voltages and currents into final amplifier (T839)	2.1033(c).(8)
-transmitter tune up procedure	2.1033 (c) (9)
-description of circuitry	2.1033 (c)(10)
-internal photographs	2.1033 (c)(12)
-external photographs (other than front and rear pictures)	2.1033 (c) (12)
-digital modulation techniques	2.1033 (c)(13) –NA- F3E emission designators
-test results	2.1033(c)(14), 2.1041
-data addressing rule part number	2.1033(c) (15),(16): this unit is not designed for the mentioned purposes

have not been changed in any way and the original data submitted for CASTEL0002 applies.

Data And Characteristics Affected By The Change in FCC ID -Rule Part Number: 2.933 (b), 2.1033 (c) (11),(12)

FCC Label	2.1033 (c) (11)
External Photographs	2.1033 (c) (12)

Two External Pictures showing the changes occurred at the front view and at the rear view (which includes also the FCC ID label) have been submitted as attachment "External Pictures".

Statement Supporting the Change in Identification of Equipment- Rule part 2.933 (b)(1) to (7) (b)(2)

The document comprising above-mentioned statement has already been submitted as a stand-alone attachment.