

TEST REPORT

I-ETS 300 219

**Customer and
manufacturer:**

RADIUS Sweden AB
Tennvägen 1
371 50 KARLSKRONA
SWEDEN

**Equipment under
test (EUT):**

Transceiver type NetMan-C/PackNet , s/n 941000729.
Fundamental frequency: 458.025 MHz.
Base station

Test date:

December 11, 1994

Place test site:

Swedish EMC Laboratories, Karlskrona, Sweden
List no 31040/SIT 1300B3.

Test personnel:

Swedish EMC Lab AB: Bo Gidlöw, Hans Östergren.

Test spec:

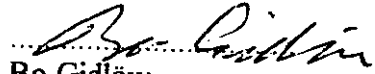
Relevant parts of: I-ETS 300 219:1993.
Radio Equipment and Systems (RES); Land mobile service. Technical
characteristics and test methods for radio equipment transmitting signals
to initiate a specific response in the receiver.

Conclusion:

The transceiver type NetMan-C/PackNet, did pass the above
mentioned tests.

KARLSKRONA, January 18, 1995.


Hans Östergren
Chief of the test Lab


Bo Gidlöw
Test engineer

Technical data: See page 12 to 20.

Test environment: Normal temperature: 15 to 35 °C
Extreme temperature: -25 to 55 °C

Normal voltage, Vn (V): 12.0
Extreme voltage, Vmin (V): 10.0
Vmax (V): 14.0

Test result:

The following item numbers correspond to the same item number in the technical standard I-ETS 300 219.

6.1.1

Frequency error

The transmitter was unmodulated.
Nominal frequency:

$F_0 = 458.025 \text{ MHz}$

	Vmin	Vn	Vmax
Tmin	458.02437	458.02436	458.02436
Tnom	458.02504	458.02504	458.02504
Tmax	458.02483	458.02483	458.02483

Difference max. - min frequency: +0.04 kHz, -0.64 kHz.

Limit: Maximum frequency deviation $\pm 1 \text{ kHz}$ at Channel separation 12.5 kHz.

6.1.2

Carrier power (conducted)

Nominal frequency, F_0 : 458.025 MHz
Without modulation

Specification of manufacturer: $P = 5 \text{ W}$ (37 dBm)

Measured power (W):

	Vmin	Vn	Vmax
Tmin	0.47	0.48	0.48
Tnom	0.47	0.48	0.48
Tmax	0.46	0.48	0.48

Limit:

The carrier power output (conducted) under normal test conditions shall be within ± 1.5 dB of the rated output power. The carrier power output (conducted) under extreme test conditions shall be within +2 dB and - 3 dB of the rated output power.

6.1.4 Adjacent channel power

Method: Test receiver

Test modulation: Without modulation and with test modulation D-M4.
See page 10. Channel separation: 12.5 kHz

Measured power at T_n and V_n .

$F_o = 458.025$

	dBm
-12.5 kHz	-38
Carrier	+37
+12.5 kHz	-38

Difference carrier-adjacent channel: 75 dB

Limit: >70 dB below the carrier.

6.1.5 Spurious emissions (transmitter)

$F_o = 458.025$ MHz
Unmodulated transmitter

9.5.2 Method of measuring the power level in a specific load.

Measured in 50 ohm load.
Frequency range: 9 kHz - 4 GHz.

Test result:

Conducted emission

Transceiver in transmitter mode.

Measured emission:

Frequency MHz	Measured uW	Limit uW
16.96388	0.03	<0.25
33.92777	0.03	<0.25
50.89166	0.03	<0.25
101.78333	0.08	<0.25
135.71111	0.08	<0.25
152.67500	0.08	<0.25
169.63888	0.08	<0.25
305.35000	0.05	<0.25
610.70000	<0.01	<0.25
763.37500	<0.01	<0.25
916.05000	<0.01	<0.25
1068.72500	<0.01	<1
1221.40000	<0.01	<1
1357.11111	<0.01	<1
1526.75000	<0.01	<1

All other emission in the frequency range 9 kHz - 4 GHz is below 0.01 uW ERP.

Transceiver in stand by mode.

Measured emission:

Frequency MHz	Measured uW	Limit uW
9 kHz - 4 GHz	<0.1	<2

9.5.3

Method of measuring the effective radiated power (erp).

Measured on the outdoor test site at a distance of 10 m.
Frequency range: 30 MHz - 4 GHz.
Unmodulated transmitter.

Transceiver Type NetMan-C/PackNet, s/n 941000729
Fo = 458.025 MHz

Test result:

Transceiver in transmitter mode.

Measured emission:

Frequency MHz	Measured uW	Limit uW
16.96388	<0.01	<0.25
33.92777	<0.01	<0.25
50.89166	<0.01	<0.25
101.78333	0.10	<0.25
135.71111	0.12	<0.25
152.67500	0.23	<0.25
169.63888	0.18	<0.25
305.35000	0.10	<0.25
610.70000	<0.01	<0.25
763.37500	<0.01	<0.25
916.05000	0.12	<0.25
1068.72500	<0.01	<1
1221.40000	0.05	<1
1374.07500	0.18	<1
1357.11111	<0.01	<1
1526.75000	<0.01	<1

All other emission in the frequency range 9 kHz - 4 Ghz is below 0.01 uW ERP.

Transceiver in stand by mode.

Measured emission:

Frequency MHz	Measured uW	Limit uW
9 kHz - 1 GHz	<0.1	<2
1 - 4 Ghz	<0.1	<20

Limit: The power of any spurious radiation shall not exceed the values given in table 2 and 3.

Table 2. Conducted emissions

Frequency range	9 kHz to 1 GHz	> 1 - 4 GHz or > 1 - 12.75 GHz
Tx operating	0.25 uW (-36 dBm)	1 uW (-30 dBm)
Tx standby	2 nW (-57 dBm)	20 nW (-47 dBm)

Table 3. Radiated emissions

<u>Frequency range</u>	<u>30 MHz to 1 GHz</u>	<u>> 1 - 4 GHz</u>
Tx operating	0.25 uW (-36 dBm)	1 uW (-30 dBm)
Tx standby	2 nW (-57 dBm)	20 nW (-47 dBm)

6.1.6 **Intermodulation attenuation** Not applicable

6.2.2 **Maximum usable sensitivity (response, conducted)**

10.2.1 **Method of measuring the maximum usable sensitivity.**

Measured in 50 Ohm load.
 Test frequency: 458.025 MHz
 Test modulation D-M3

Test results:
 Normal test conditions: + 2 dBuV
 Extreme test conditions + 3 dBuV

 Limits: Normal + 3 dBuV
 Extreme + 9 dBuV

6.2.3 **Maximum usable sensitivity (response, field strength)**

Not applicable

6.2.4 **Co-channel rejection**

Not applicable

6.2.5 **Adjacent channel selectivity**

10.5.2 **Method of measuring adjacent channel selectivity.**

Measured in 50 Ohm load.
 Test frequency: 458.025 MHz
 Test modulation D-M3
 Adjacent channel generator 1: 458.0375 MHz
 Adjacent channel generator 2: 458.0125 MHz

Test results:

Normal test conditions:

G1: 62 dB

G2: 63 dB

Extreme test conditions:

G1: 58 dB

G2: 58 dB

Limits: 12.5 kHz separation

Normal 60 dB

Extreme 50 dB

6.2.6 Spurious response rejection

10.6.2.2 Method of measuring spurious response rejection.

Measured in 50 Ohm load.

Test frequency: 458.025 MHz

Test modulation D-M3

Level: +6 dBuV

Test results:

Spurious frequency MHz	level dBuV
17.9	+77
35.8	+77
53.7	+76
62.825	+77
71.6	+79
116.875	+85
152.675	+83
251.650	+85
287.450	+80
386.425	+81
422.225	+79
440.125	+85
475.925	+84
700.900	+87
736.700	+87
790.750	+83
825.550	+85

Limit: min 70 dB difference between +6 dBuV and spurious frequency

6.2.7 Intermodulation response rejection

Not applicable

6.2.8 Blocking of desensitisation

Not applicable

6.2.9 Spurious radiation's (receiver)

10.9.2 Method of measuring the power level in a specified load.

Measured in 50 Ohm load.
Frequency range: 9 kHz - 4 GHz.

Test result:

Transceiver Type NetMan-C/PackNet, s/n 941000729
Fo = 458.025 MHz
Transceiver in receiver mode.

Conducted emission

Measured in 50 ohm load.
Frequency range: 9 kHz - 4 GHz.

Measured emission:

Frequency MHz	Measured nW	Limit nW
52.88055	1.6	<2
105.76111	1.8	<2
158.64166	1.4	<2

All other emission in the frequency range 9 kHz - 4 GHz is below 0.1 nW ERP.

Radiated emission

Measured on the outdoor test site at a distance of 10M.

Frequency range: 30 MHz - 4 GHz.

Measured emission:

Frequency MHz	Measured nW	Limit nW
105.76111	0.2	<2

All other emission in the frequency range 30 MHz - 4 GHz is below 0.01 uW ERP.

Limit: The power of any spurious radiation shall not exceed the values given in table 6 and 7.

Table 6. Conducted component

Frequency range	9 kHz to 1 GHz	> 1 - 4 GHz or > 1 - 12.75 GHz
Limit	2.0 nW (-57 dBm)	20 nW (-47 dBm)

Table 7. Radiated component

Frequency range	30 MHz to 1 GHz	> 1 - 4 GHz
Limit	2.0 nW (-57 dBm)	20 nW (-47 dBm)

Measurement uncertainty: See Page 11.

8.1 Normal Test Signal

The test signal D-M4 consists of coded signals one by one without gaps between them.

The used test signal require the greatest occupied radio modulation bandwidth.

Details of used test signal:

Type of modulation:	16K0F1D/G1D
Modulation frequency:	Mark, 1300 Hz Space, 2100 Hz
Speed:	1200 bps
Nom. deviation:	2.0 kHz
Test sequence:	Alternating mark - space

TEST EQUIPMENT:

Spectrum analyser, HP 71200
Plug-in module, HP 70906A (HF)
Plug-in module, HP 70900A (LO)
Plug-in module, HP 70902A (MF)
Plug-in module, HP 70300A (GEN)
Plug-in module, HP 70310A (REF)
Signal Generator, Marconi 2024, 10kHz - 2.4GHz
Signal Generator, Rohde & Schwarz SMG, 0.1 - 1000 MHz
Test receiver Rohde & Schwarz, ESVP, 20 - 1300 MHz
Antenna Schwarzbeck, BBA9106, 25 - 300 MHz
Balun to BBA 9106, Schwarzbeck VHA9103, 25 - 300 MHz
Antenna Schwarzbeck, UHALP 9107, 0.3 - 1 GHz
Antenna EMCO, 3115, 1 - 18 GHz
Antenna cable, type RG214
Precision attenuators, HP 8491B
Power Attenuators, Suhner, 10W 10 dB
Rotating table of isolated material
Digital multimeter, Fluke type 77
DC power supply, Trio PR-630
Temperature chamber, Weis Technik GmbH, Type KWP 30/80-180 DU
Shielded absorber chamber, 8 x 4.5 x 3 M
Open field test site for 10 M distance. Ground plane 6 x 24 M

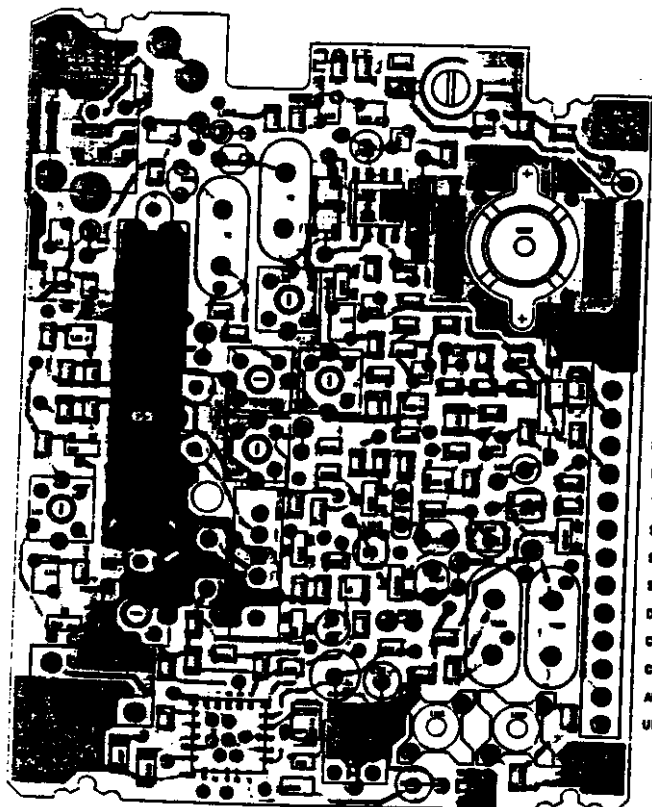
UNCERTAINTY:

Frequency:	± 10 Hz
Power:	± 0.5 dB
Adjacent channel power:	± 3 dB
Conducted emission power	± 3 dB
Radiated emission Power:	± 3 dB
Temperature:	± 0.5 degree C
Voltage:	$\pm 0.1\%$

Basic technical data

Equipment under test:	Transceiver, 458.025 MHz
Manufacturer:	RADIUS Sweden AB
Type:	NetMan-C/PackNet
Type of equipment:	- Transmitter
	- Receiver
	X - Transceiver
Area of use:	- Mobile, receiver
	- Mobile, transmitter
	X - Fixed station
Operating frequency:	X - Channels: 1 Frequency: 458.025 MHz
Category:	- AR 1
	- AR 2
Alignment range:	-
Transmitter:	X - Nominal erp: 5W
	X - Nominal power to antenna: 5W
	- Synthesised
	X - Not synthesised. Formula: $F_c = 27 F_o$
Type of modulation:	- AM
	X - FM
	- Other.
Type of antenna:	- Integral. Length: mm
	X - Antenna connection
Impedance:	X - Contact 50 Ohm
Power supply:	X - Mains 4 - 19 VAC
	X - Battery
Supply voltage:	X - Normal: 12.0 VDC
	X - Extreme: 10.0 VDC, 15.0 VDC
Traffic:	- Speech
	X - Data transmitting
	- Radio control
	- Alarm
	- Telemetry
Receiver:	- Synthesised
	X - Not synthesised. Formula: $F_o = F_c \times 3 + 17.9 \text{ MHz}$
	X - Intermediate frequency: 17.9 MHz, 0.455 MHz
Power supply:	X - Mains 4 - 19 VAC
	X - Battery 12.0 VDC
Peripherals:	- Microphone
	- Speaker
	- Other peripherals
	X - No peripherals
Other documentation:	X - Circuits with component values (5 pages)
	X - PCB component layout (1 page)
	X - PCB drawing (1 page)

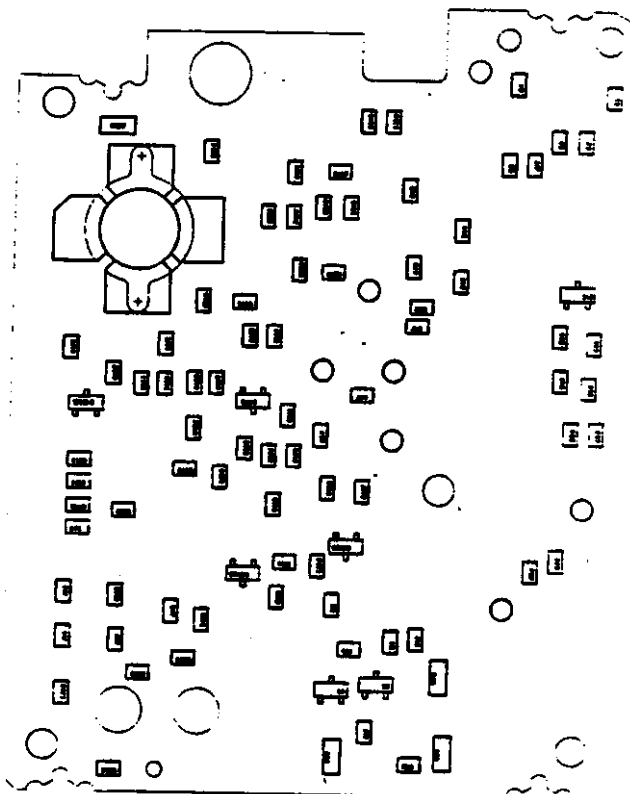
UHF RF BOARD



MOD
 SW S+
 XMIT S+
 SV RX
 SV TX
 TX MOD OUT
 SQ DETECT
 SQ ADJUST OUT
 SQ ADJUST IN
 DRCR OUT
 CH SEL B
 CH SEL A
 AUX TX MOD
 UNDO S+

COMPONENT SIDE
 SOLDER SIDE
 OVERLAY
 CEPD-46550-0
 CEPD-46550-0
 CEPD-46550-0

SHOWN FROM COMPONENT SIDE



CEPD-46550-0 SOLDER SIDE (REV)
 CEPD-46550-0 OVERLAY

SHOWN FROM SOLDER SIDE

TEST REPORT

I-ETS 300 219:1993

CUSTOMER
AND
MANUFACTURER:

RADIUS Sweden AB
Tennvägen 1
371 50 KARLSKRONA
SWEDEN

EQUIPMENT UNDER
TEST (EUT):

Tranciever Type Netman-C/Packnet-2, s/n 941000414.
Fundamental frequency: 142.025 MHz.
Base Station.

TEST DATE: October 26, 1994

PLACE TEST
SITE:

Swedish EMC Laboratories, Karlskrona, Sweden
List No 31040/SIT 130083.

TEST PER-
SONNEL:

Swedish EMC Lab AB: Bo Gidlöw, Hans Östergren.

TEST SPEC:

Relevant parts of: I-ETS 300 219:1993.
Radio Equipment and Systems (RES); Land mobile
service. Technical characteristics and test methods
for radio equipment transmitting signals to initiate
a specific response in the receiver.

CONCLUSION:

The Tranciever Type Type Netman-C/Packnet-2, did
pass the above mentioned test.

KARLSKRONA, November 15, 1994.


HANS ÖSTERGREN


Bo Gidlöw

TECHNICAL DATA:

See Appendix 1 to 9.

TEST ENVIRONMENT:

Normal temperature: 15 to 35 degree C
Extreme temperature: -25 to 55 degree C

Normal voltage, Vn (V): 12.0
Extreme voltage: Vmin (V): 10.0
Vmax (V): 14.0

TEST RESULT:

The following item numbers corresponds to the same item number in the technical standard I-ETS 300 219.

6.1.1 Frequency Error

The transmitter was unmodulated.
Nominal frequency:

Fo = 142.025 MHz

	Vmin	Vn	Vmax
Tmin	142.02437	142.02436	142.02436
Tnom	142.02504	142.02504	142.02504
Tmax	142.02483	142.02483	142.02483

Differens max - min-frequency: +0.04 kHz, - 0.64 kHz.

Limit: Maximum frequency deviation ± 2 kHz at Channel separation 25 kHz.

6.2.2 Carrier Power (conducted)

Nominal frequency, fo: 142.025 MHz
Without modulation

Manufacturers specification: P = < 500 milli-watt (27 dBm)

Measured power (milli-watt):

	Vmin	Vn	Vmax
Tmin	0.47	0.48	0.48
Tnom	0.47	0.48	0.48
Tmax	0.46	0.48	0.48

TEST REF NO: 94-1524
DATE: November 15, 1994

Limit: The carrier power output (conducted) under normal test conditions shall be within + 1.5 dB of the rated output power. The carrier power output (conducted) under extreme test conditions shall be within +2 dB and -3 dB of the rated output power.

6.1.4 Adjacent channel power

Methode: Test receiver

Test modulation: Without modulation and with test modulation D-M4. See Appendix 10.

Channel separation: 25 kHz

Measured power at f_n and f_n .

$f_0 = 142.025$ MHz

	dBm
-25 kHz	-48
Carrier	+27
+25 kHz	-48

Difference carrier-adjacent channel: 75 dB

Limit: >70 dB below the carrier.

6.1.5 Spurious emissions (transmitter)

9.5.2 Methode of measuring the power level in a specified load.

Measured in 50 ohm load.

Frequency range: 9 kHz - 4 GHz.

Unmodulated transmitter.

Test result: See Appendix 11.

9.5.3 Methode of measuring the effective radiated power (erp).

Measured on the outdoor test site at a distance of 10 m.

Frequency range: 30 MHz - 4 GHz.

Unmodulated transmitter.

Test result: See Appendix 12.

Limit: The power of any spurious radiation shall not exceed

Table 2. Conducted emissions

Frequency range	9 kHz to 1 GHz	>1-4 GHz or >1-12.75 GHz
Tx operating	0.25 μ W nW (-36 dBm)	1 μ W (-30 dBm)
Tx standby	2 nW (-57 dBm)	20 nW (-47 dBm)

Table 3. Radiated emissions

Frequency range	30 MHz to 1 GHz	>1-4 GHz
Tx operating	0.25 μ W nW (-36 dBm)	1 μ W (-30 dBm)
Tx standby	2 nW (-57 dBm)	20 nW (-47 dBm)

6.2.9 Spurious radiations (reciever)

10.9.2 Methode of measuring the power level in a specified load.

Measured in 50 ohm load.

Frequency range: 9 kHz - 4 GHz.

Test result: See Appendix 13.

10.9.3 Methode of measuring the effective radiated power (erp).

Measured on the outdoor test site at a distance of 10 m.

Frequency range: 30 MHz - 4 GHz.

Test result: See Appendix 13.

Limit: The power of any spurious radiation shall not exceed the values given in table 6 and 7.

Table 6. Conducted component

Frequency range	9 kHz to 1 GHz	>1-4 GHz >1-12.75 GHz
Limit	2.0 nW (-57 dBm)	20 nW (-47 dBm)

Table 7. Radiated component

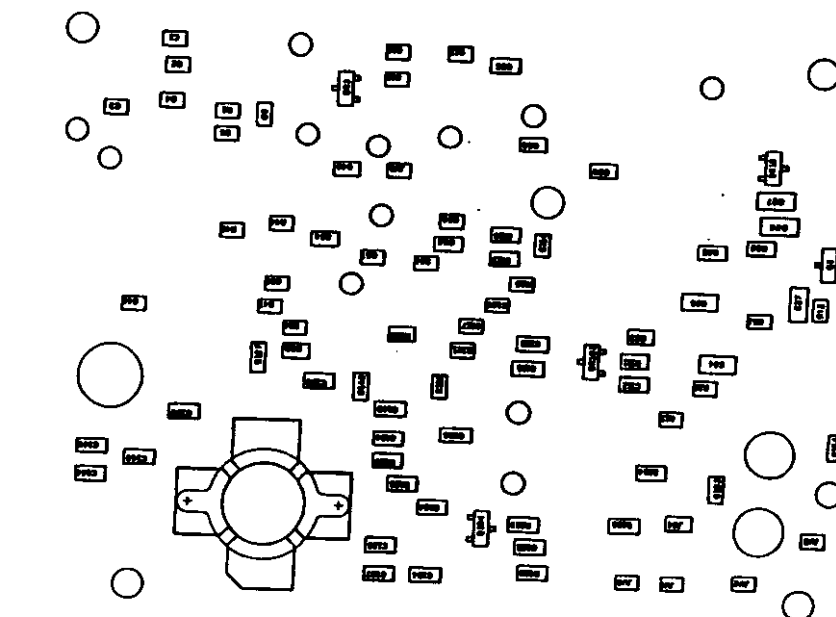
Frequency range	30 MHz to 1 GHz	>1-4 GHz
Limit	2.0 nW (-57 dBm)	20 nW (-47 dBm)

MEASUREMENT UNCERTAINTY: See Appendix 14.

Basic Technical Data

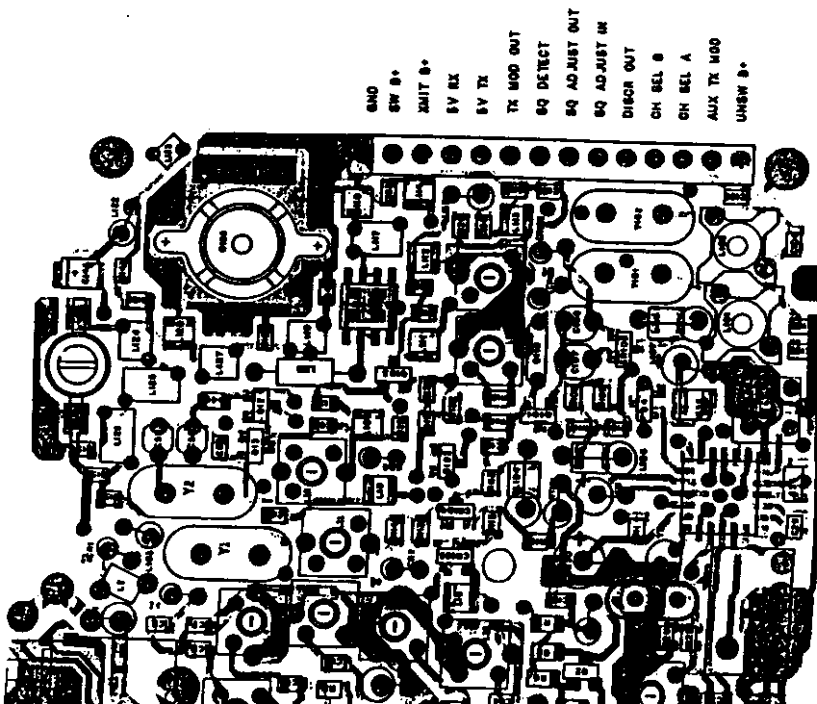
Equipment Under Test:	Tranciever, 142.025 MHz
Manufacturer:	Radius Sweden AB
Type:	NETMAN-C/PACNET-2
Type of equipment:	-Transmitter -Reciever - X -Tranciever
Area of use:	-Mobile, reciever -Mobile, transmitter - X -Fixed station
Operating frequency:	X -Channels: 1 Frequency: 142.025 MHz
Category:	-AR1
Alignment range:	-AR2
Transmitter:	- X -Nominal erp: <500 mW - X -Nominal power to antenna: <500 mW -Synthesised - X -Not synthesised. Formula: $F_c=9F_o$
Type of modulation:	-AM - X -FM -Other.
Type of antenna:	-Integral. Length: mm - X -Antenna connection
Impedance:	X -Contact 50 Ohm
Power supply:	- X -Mains 4-19 VAC - X -Battery
Supply voltage:	- X -Normal: 12.0 VDC - X -Extreme: 10.0 VDC, 15.0 VDC
Traffic:	-Speech - X -Data transmitting -Radio control -Alarm -Telemetry
Reciever:	-Synthesised - X -No synthesized. Formula: $F_o=F_c+17.9$ MHz - X -Intermediate frequency: 17.9, 0.455 MHz
Power supply:	- X -Mains 4-19 VAC - X -Battery 12.0 VDC
Peripherals:	-Microphone -Speaker -Other peripherals - X -No peripherals

VHF RF BOARD



SOLDER SIDE CEP3-48250-0 (REV)
OVERLAY CEP3-48250-0

SHOWN FROM SOLDER SIDE



COMPONENT SIDE CEP3-48250-0
SOLDER SIDE CEP3-48250-0
OVERLAY CEP3-48250-0

SHOWN FROM COMPONENT SIDE

END
CH B+
EXIT B+
SV RX
SV TX
TX MOD OUT
SQ DETECT
SQ ADJUST OUT
SQ ADJUST IN
DISCR OUT
CH BEL B
CH BEL A
AUX TX MOD
UNSW B+

8.1 Normal Test Signal

The test signal D-M4 consists of coded signals one by one without gaps between them.

The used test signal requires the greatest occupied radio modulation bandwidth.

Details of used test signal:

Type of modulation:	16K0F1D/G1D
Modulation frequency:	Mark, 1300 Hz Space, 2100 Hz
Speed:	1200 bps
Nom. deviation:	3.0 kHz
Test sequence:	Alternating mark-space

6.1.5 Spurious emissions (transmitter)

EUT: Tranciever Type Netman-C/Packnet-2, s/n 941000414
 fo = 142.025 MHz
 Unmodulated transmitter.
 Tranciever in transmitter mode.

Conducted emission

Measured in 50 ohm load.
 Frequency range: 9 kHz - 4 GHz.

Measured emission:

Frequency MHz	Measured uW	Limit uW
15.78055	0,03	<0.25
31.56110	0.03	<0.25
47.34175	0,03	<0.25
94.68330	0.08	<0.25
126.2444	0,08	<0.25
157.8055	0,08	<0.25
284.0499	0,05	<0.25
426.0675	<0,01	<0.25
568.0998	<0,01	<0.25
710.1248	<0,01	<0.25
852.1497	<0,01	<0.25
994.1746	<0,01	<0.25
1135.	<0,01	<1
1274.	<0,01	<1
1420.	<0,01	<1

All other emissions in the frequency range 9 kHz - 4 GHz
 is below 0.01 micro-watt erp.

Tranciever in stand by mode.

Measured emission:

Frequency MHz	Measured nW	Limit uW
9kHz-4GHz	<0,1	<2

6.1.5 Spurious emissions (transmitter)

Radiated emission

EUT: Tranciever Type Netman-C/Packnet-2, s/n 941000414
 fo = 142.025 MHz
 Unmodulated transmitter.
 Tranciever in transmitter mode.
 Measured on the outdoor test site at a distance of 10 m.
 Frequency range: 30 MHz - 4 GHz.

Tranciever in transmitter mode.

Measured emission:

Frequency MHz	Measured uW	Limit uW
284.0450	0.06	<0.25
426.0675	0,02	<0.25
568.0900	0,02	<0.25
710.1125	0.10	<0.25
852.1540	0,24	<0.25
994.1835	0,08	<0.25
1135.	<0,01	<1
1274.	<0,01	<1
1420.	<0,01	<1

All other emissions in the frequency range 30 MHz - 4 GHz
 is below 0.01 micro-watt erp.

Tranciever in stand by mode.

Measured emission:

Frequency MHz	Measured nW	Limit nW
9kHz-1GHz	<0,1	<2
1 - 4 GHz	<0.1	<20

6.2.9 Spurious radiations (reciever)

EUT: Tranciever Type Netman-C/Packnet-2, without s/n.
 fo = 142.025 MHz
 Tranciever in reciever mode.

Conducted emission

Measured in 50 ohm load.
 Frequency range: 9 kHz - 4 GHz.

Measured emission:

Frequency MHz	Measured nW	Limit nW
53.3083	1.6	<2
106.6167	1.8	<2
159.9250	1.4	<2

All other emissions in the frequency range 9 kHz - 4 GHz
 is below 0.1 nano-watt erp.

Radiated emission

Measured on the outdoor test site at a distance of 10 m.
 Frequency range: 30 MHz - 4 GHz.

Measured emission:

Frequency MHz	Measured nW	Limit nW
77.418	0.2	<2

All other emissions in the frequency range 30 MHz - 4 GHz
 is below 0.01 micro-watt erp.

TEST EQUIPMENT:

Spectrum Analyzer, HP 71200
Plug-in modul, HP 70906A (HF)
Plug-in modul, HP 70900A (LO)
Plug-in modul, HP 70902A (MF)
Plug-in modul, HP 70300A (GEN)
Plug-in modul, HP 70310A (REF)
Test Reciever Rohde & Schwarz, ESVP, 20-1300 MHz
Antenna Schwarzbeck, BBA9106, 25-300MHz, nr 911127
Antenna Schwarzbeck, BBA9106, 25-300MHz, nr 860414
Balun to BBA9106, Schwarzbeck VHA9103, 25-300 MHz
Balun to BBA9106, Schwarzbeck VHA9103, 25-300 MHz
Antenna Schwarzbeck, UHALP 9107, 0.3-1GHz, nr 9107311
Antenna Schwarzbeck, UHALP 9107, 0.3-1GHz, nr 91071205
Antenna EMC0, 3115, 1-18GHz, nr 2338
Antenna EMC0, 3115, 1-18GHz, nr 2094
Antenna cable, typ RG214/U
Precision attenuator, HP 8491B/10 dB
Power Attenuators, Suhner, 1 W, 10 dB, 6810.17A
Rotating table of isolated material
Digital multimeter, Fluke typ 77
DC power supply, Trio PR-630
Temperature chamber, Weis Technik GMBH, typ KWP 30/80-180DU
Shielded absorber chamber, 8 x 4.5 x 3 m
Open Field Test Site for 10 m distance. Ground plane 6x24 m

UNCERTAINTY:

Frequency:	+ 10 Hz
Power:	± 0.5 dB
Adjacent channel power:	± 3 dB
Conducted emission power:	± 3 dB
Radiated emission power:	± 3 dB
Temperature:	± 0,5 degree C
Voltage:	± 0,1%