



# Radioenlace digital BPT-R V/UHF



## UHF STL TRANSMITTER



### BPT-V/UHF TRANSMITTER SPECIFICATIONS

Type	solid state direct FM frequency synthesised crystal referenced thermal compensated
Frequency stability	better than 4 ppm <sup>0</sup> -----+40°C±1000Hz/year
Frequency range	170-200MHz, 210-250MHz, 270-300MHz, 300-330MHz, 370-400MHz, 420-450MHz, 450-470MHz. Other bands are available on request.
Frequency setting	in 25 kHz steps
Internal setting mode	by keys
RF Output PW	0 up to 2W directly digitally programmable 7/8" EIA
RF Output PW (Option A)	0 up to 20 W directly digitally programmable
Pw resolution setting	0.1W
Pw control limit setting	0.1 to 20W
Pw control stability	<0.1dB
Rev. output pw control limit	2W
Harmonics	<-60dBc
Spurious emission	<-90dBc
Carrier reduction Pw	>60dB (carrier enable OFF)
Asynchronous AM S/N Ratio	better than 60dB
Synchronous AM S/N Ratio	better than 60dB
Modulation type	direct VCO frequency modulation
Nominal frequency deviation	±75kHz
Deviation Linearity	±0.1dB
Peak detector error	<0.1dB

### MODULATION CAPABILITY

MONO (left or right)	30Hz to 15 kHz
STEREO (by internal Stereo Generator)	30Hz to 53 kHz
SCA (two channels)	30Hz to 100 kHz
COMPOSITE	MONO or STEREO + SCA

### CHARACTERISTICS IN MONO (OPTION B)

Signal input	Left + Right
Input connector	XLR
Input impedance	600 $\Omega$ (balanced) or 10 k $\Omega$ (unbalanced)
Unbalance rejection	>40dB
Input level	0 up to +13dBm
Pre-emphasis	75 or 50 $\mu$ s, selectable by a jumper
Audio frequency response (30 Hz to 15 kHz)	<0.1dB
Audio frequency response (19 Hz to 100 kHz)	<-40dB

### INTERNAL STEREO CHARACTERISTICS (OPTION B)

Signal input	Left + Right
Input connector	XLR
Input impedance	600 $\Omega$ (balanced) or 10 k $\Omega$ (unbalanced)
Unbalance rejection	>40dB
Input level	-0 up to +13dBm
Pre-emphasis	75 or 50 $\mu$ s, selectable by a jumper
Cross-talk between left and right channel	>50dB
Stereo separation between left and right channel	>50dB
Distortion at frequency deviation of 75 kHz	<0.05%
Distortion at frequency deviation of 100 kHz	<0.05%
Suppression of 38 kHz	>70dB
Spurious suppression outside band	in according to ETS 300-384
Pilot reference for RDS encoder (19 kHz out)	1Vpp

### SCA CHARACTERISTICS

Input (SCA1, SCA2)	BNC unbalanced
Input impedance	10k $\Omega$
Distorsion	<0.1%
Modulation capability	0-10%

### COMPOSITE AMPLITUDE RESPONSE

Mono	$\pm$ 0.15 dB - typ. 0.12dB	30Hz-5 kHz
	<-40dB - typ. <-50dB	19kHz-100 kHz
Int. Stereo (L/R Ch)	$\pm$ 0.15 dB - typ. 0.12dB	30Hz-15 kHz
Modulation capability	<-40dB	50kHz-100 kHz
Ext. Stereo (MPX)	< $\pm$ 0.15 dB 30Hz-5 kHz	
SCA 1,2	< $\pm$ 0.1 dB 50 kHz-100 kHz	

**COMPOSITE FM S/N RATIO (Referred to  $\Delta F = \pm 75\text{kHz}$  and  $50\mu\text{s}$  de-emph.)**

Mono	>70 dB 30Hz-20kHz filter bandwidth
Int. Stereo	>70 dB L-R, decoded, 30Hz-20kHz filter bandwidth
Ext. Stereo (MPX)	>70 dB L-R, decoded. 30Hz-20kHz filter bandwidth

**TOTAL HARM. DISTORTION (Referred to  $\Delta F = \pm 75\text{kHz}$  and  $50\mu\text{s}$  de-emph.)**

Mono	<0.03% 30Hz-20kHz bandwidth
Int. Stereo (L/R Ch)	<0.03% 30Hz-20kHz bandwidth
Ext. Stereo (MPX)	<0.03% 30Hz-20kHz bandwidth

**AUDIO SWITCH (OPTION C)**

MPX1 / MPX2	Local or Remote control
-------------	-------------------------

**READOUT ON LCD DISPLAY (40x4 characters)**

Forward power resolution	1W
Reverse power resolution	0.1W
Modulation resolution	1 kHz
Power amplifier voltage resolution	1V
Heatsink temperature resolution	1°C

**REMOTE CONTROL (OPTION C)**

LAN for internet connection	two RJ45 with Ethernet switch
Local or remote BROWSER	WEB (Explorer, Mozilla ...) or SNMP

**POWER SUPPLY and TEMPERATURE RANGE**

AC operating voltage	100-250Vac $\pm 15\%$
DC operating voltage	20-26Vdc $\pm 10\%$
Line power	<75VA
Nominal temperature range	-5° to 40°
Operating temperature range	-10° to 45°
Storage temperature range	-40° to 50°

**MECHANICAL SPECIFICATION**

19" rackmoun	485x86x320mm
Weight	5kg

**OPTIONS**

Option A	OUTPUT POWER 20 Watt
Option B	STEREO GENERETOR
Option C	REMOTE CONTROL

**UHF STL RECEIVER**



**BPR-V/UHF RECEIVER SPECIFICATIONS**

Frequency range	170-200MHz, 210-250MHz, 270-300MHz, 300-330MHz, 370-400MHz, 420-450MHz, 450-470MHz. Other bands are available on request.
Local oscillator type	direct (Fi ± 10.7 MHz) FM frequency synthesised crystal referenced thermal compensated
Frequency stability	better than 4 ppm- ----- 0°-+40°C±1000Hz/year
Frequency setting	in 25 kHz steps
Internal setting mode	by keys
Sensitivity	Stereo: -66dBm or less required for 60dB SNR (left or right channel demodulated, decoded and de-emph.)
	Mono: -86dBm or less required for 60dB SNR (20Hz-20kHz and de-emph)
Selectivity (wide IF bandwidth)	
Static (If bandwidth)	3dB IF bandwidth ----- ±100kHz
	50dB IF bandwidth ----- ±250kHz
	60dB IF bandwidth ----- ±280kHz
Dynamic (According to ITU-BS412)	±100kHz ----- -45dB
	±200kHz ----- -10dB
	±300kHz ----- -30dB
	±600kHz ----- >-40dB
Selectivity (narrow IF bandwidth)	
Static (If bandwidth)	3dB IF bandwidth ----- ±100kHz
	50dB IF bandwidth ----- ±200kHz
	60dB IF bandwidth ----- ±220kHz
Dynamic (According to ITU-BS412)	±100kHz ----- -45dB
	±200kHz ----- -20dB
	±300kHz ----- -35dB
	±600kHz ----- >-45dB
Squelch	-90dBm to -10dBm, directly digitally programmable with 1dB increment step.
RF input signal dinamic	-100 dBm to 0 dBm.
Modulation output	· MPX, two BNC connectors, 0-12dBm, bal, unbal., Zout<100Ω · MONO, L&R XLR connectors, 0-12dBm, bal, Zu=<100Ω

Distribuido por:

AVM - Tel.: (+52 55) 57 05 50 09 comercial@avmexico.mx www.avmexico.mx

## BPR-V/UHF RECEIVER SPECIFICATIONS

Frequency response (wide IF bandwidth)	
MPX Output	±0.1dB ----- 40Hz-53kHz
	±0.5dB ----- 53-75kHz
	-0.5dB ----- 75-100kHz
	<-60dB ----- >140kHz
Stereo separation (wide IF bandwidth)	
MPX Out	>60dB or better ----- 40Hz-5 kHz
	>60dB or better ----- 5 kHz-15 kHz
L&R decodec (OPT.A)	>60dB or better ----- 40Hz-5 kHz
	>60dB or better ----- 5 kHz-15 kHz
Frequency response (narrow IF bandwidth)	
MPX Output	±0.3dB ----- 40 Hz-53 kHz
	±0.5dB -----53KHz -75 kHz
	-50 dB ----- 90 kHz
	<-60dB ----- >100 kHz
Stereo separation (narrow IF bandwidth)	
MPX Out	>50dB or better ----- 40 Hz-5 kHz
	>45dB or better ----- 5 kHz-15 kHz
L&R decodec (OPT.A)	>50dB or better ----- 40 Hz-5 kHz
	>45dB or better ----- 5 kHz-15 kHz
Stereo Crosstalk MPX out	>40dB or better ----- 40 Hz - 15 kHz
Signal-to-noise ratio	
MPX	(40Hz-15 kHz bandwidth L or R decoded & de-emph.) >70dB ----- Vi>-40dBm
	(CCIR wtd, L or R decoded and de-emph.) >68dB ----- Vi>-40dBm
L&R Decoded&DE-EMP.	>70dB ----- Vi>-40dBm
Distortion THD	
MPX	<0.1% ----- (L or R decoded & de-emph.)40 Hz-5 kHz
L&R	<0.1 % ----- 40 Hz-5kHz
DE-Emphasis	50 or 75µs ON/OFF by jumpers.

### ALARM (One reed contact)

Carrier detect
Internal power supply
External power supply
Lock detects

### REMOTE CONTROL

Field
Frequency
External battery level
Alarms
Squelch threshold
Modulation

### REMOTE CONTROL (OPTION C)

LAN for internet connection -----	two RJ45 with Ethernet switch
Local or remote BROWSER -----	WEB (Explorer, Mozilla ...) or SNMP protocol

### POWER SUPPLY and TEMPERATURE RANGE

AC operating voltage	85-240Vac $\pm 15\%$ <50VA
DC operating voltage	20-28Vdc $\pm 10\%$ <1A
Line power	<50VA
Nominal temperature range	-5° to 40°
Operating temperature range	-10° to 45°
Storage temperature range	-40° to 50°

### MECHANICAL SPECIFICATION

19" rackmount	485x86x320mm
Weight	4kg

### OPTIONS

Option A	REMOTE CONTROL
Option B	STEREO DECODER
Option C	MONO, MPX, RDS REGENERATION