



DATASHEET	Pages : 02 Reference : 010048I
TETRA/TETRAPOL/DMR DigiSeL <small>Digital channel selective repeater</small>	Date of application : 18/07/2016

❖ **General Description :**

The **Digital channel selective repeater** assures the services continuity **Tetra /Tetrapol/DMR** in the places or the infrastructures insufficiently covered.

This product can repeat to 18 channels in an independent way (power or frequency).

Smart product, with settings in commissioning, plug and play and easy remote configuration changes.

Depending on customer requirements and to optimize the cost of coverage, range of **SELECOM** repeaters is divided into:

- ✓ **Two types of mechanical :**
 - Box version (tower pylon or wall fixation),
 - Rack version (19"- 2U/3U)
- ✓ **Three power ranges:**
 - + 17 dBm,
 - + 24 dBm,
 - + 37 dBm.



No contractual pictures

Technical characteristics			
<i>Frequency Band</i>	380/470 MHz		
<i>Frequency range</i>	UP LINK		DOWN LINK
	380 - 385 MHz	385 - 390 MHz	390 - 395 MHz
	410 - 415 MHz	415 - 420 MHz	395 - 400 MHz
	445 - 450 MHz	450 - 455 MHz	420 - 425 MHz
	455 - 460 MHz	460 - 465 MHz	425 - 430 MHz
	465 - 470 MHz	465 - 470 MHz	460 - 465 MHz
<i>Power</i>	+17 dBm	+24 dBm	+37 dBm
<i>Ripple in the Bandwidth</i>	≤ ± 2 dB	≤ ± 2 dB	≤ ± 1 dB
<i>Gain</i>	From + 50 to + 80 dB	From + 55 to + 85 dB	From + 60 to + 90 dB
<i>Mode Mute setting range (On MS input)</i>	-70 dBm and -25 dBm		
<i>Noise Factor</i>	≤ 6 dB @ Gain max		
<i>Fixed Filters (Downlink) To 180 points*</i>	Adjustable filter gain in local or remote access <i>Channels and bandwidth configured factory and modifiable on user request</i>		
<i>Dynamic Filters (Downlink) To 120 points*</i>	Adjustable filter gain in local or remote access <i>Channels and bandwidth configurable on-site and remote user</i>		
<i>Channel Width</i>	Adjustable from 12.5 KHz to 100 KHz		
<i>Attenuation for each channel</i>	Adjustable from 0 dB to -100 dB		

*See next to the filter characteristics

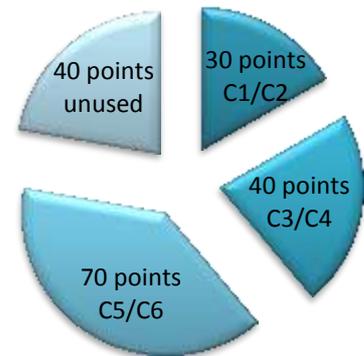


The available resources in the FPGA are represented by points. Every filter consumes a number of points:

Filter Characteristics (Downlink) : Number of channels and bandwidth				
Bandwidth	12,5 kHz	25 kHz	50 kHz	90 kHz
Consumption of point	10	15	20	35
Number of fixed Filters max	18	12	9	4
Number of dynamics Filters max	12	8	6	3
Time group	25 to 45 μ s depending on configuration			

Example : Repeater with 6 different filters Bandwidth:

- 25 kHz Channel 1 \longrightarrow 15 points
- 25 kHz Channel 2 \longrightarrow 15 points
- 50 kHz Channel 3 \longrightarrow 20 points
- 50 kHz Channel 4 \longrightarrow 20 points
- 90 kHz Channel 5 \longrightarrow 35 points
- 90 kHz Channel 6 \longrightarrow 35 points



A total of 140 points is necessary. The fixed filters solution is unavoidable and 40 points will not be used

Mechanical and electrical characteristics					
Supply voltage		230 Vac or 48 Vdc or 24 Vdc			
Power consumption		DL	+17dBm	+24dBm	+37dBm
		UL			
		+17dBm	72 W	85 W	120 W
		+24dBm	85 W	100 W	135 W
		+37dBm	120 W	135 W	150 W
Box	+17/+24 dBm	Dimensions (H x P x l)	550 mm x 105,2 mm x 350 mm		
		Poids	17 Kg		
	+37 dBm	Dimensions (H x P x l)	550 mm x 140,2 mm x 350 mm		
		Poids	23 Kg		
Rack	+17/+24 dBm	Dimensions (H x P x l)	2U 83.5 mm x 502 mm x 440 mm/19"		
		Poids	A venir		
	+37 dBm	Dimensions (H x P x l)	3U 128 mm x 502 mm x 440 mm/19"(UL/DL)		
		Poids	17 Kg		
Connectors		N_Female			
RAL		9002			
Protection Class		IP65			
Temperature range		- 25°C / + 50°C			
Cooling system	Box version	Natural convection of cooling with dissipator of heat			
	Rack version	Internal Fan			
Monitoring		On LAN –RJ45 Modem 2G/3G/4G (IP protocol; HTTP Web; SNMP)			