

### **NEW product, Contact Customer Service for availability**

# 3-channel Square Cavity Combiner for the UHF frequency range 740 - 870 MHz

#### **DESCRIPTION**

- The Amphenol Procom series of Square Cavity Combiners have been designed to help identify the optimum solution for combining several transmitters into one antenna.
- The Square Cavity Combiners are moreover designed by the square or rectangular shape of the cavities themselves to fill in a minimum of rack space, compared to other similar round types of combiners.
- The Tx Combiners are highly used in Public Safety radio systems in US used by e.g. policeforces, the firebrigates and the ambulance services.
- The Public Safety networks as FirstNet and P25 are allocated e.g. in the frequency spectrum 758 - 776 MHz / 788 - 806 MHz and in the range 806 - 824 MHz / 851 - 869 MHz
- Beside the utilization in Public Safety networks the Tx-combiners are also highly used in commercial/private wireless radio neworks in the 776 788 MHz area.
  Here the Tx-combiners are securing isolating the noise from it's own transmitters, so they will not interfere on it's own radio receivers and will not interfere other adjacent PMR or Public Safety radio networks
- The Square Cavity Combiner can accomodate high power upto max. 150 W CW per Tx-channel
- To acheive the very best and sufficient Tx-Tx isolation over the Frequency range 740 - 870 MHz range, Broad Banded Dual Isolators are fitted as standard.
- The cavities included in the combiner can, due to he use of broad banded isolators, be tuned in the whole band 758 - 776 MHz with just the related one cable kit.
- Please, when ordering, specify the frequencies for tuning the Tx channels



Front view



Rear view

#### **SPECIFICATIONS**

Electrical	
Model	PRO-CAV800-3DI-4HU-SQ
Frequency	740 - 870 MHz (Specifications indicated here is for the frequency band 758 - 776 MHz. Other bands is available on request)
Max. Input Power	150 W
Spacing Tx-Tx	≥ 250 kHz
Insertion Loss	5.0 dB @ Tx-Tx spacing = 250 kHz, Tx-Tx Isolation 50 dB & freq. 758 - 776 MHz 4.0 dB @ Tx-Tx spacing = 500 kHz, Tx-Tx Isolation 55 dB & freq. 758 - 776 MHz 3.0 dB @ Tx-Tx spacing = 1000 kHz, Tx-Tx Isolation 60 dB & freq. 758 - 776 MHz
Impedance	50 Ω
Ant-Tx Isolation	> 46 dB
Isolation Tx-Tx	> 50 dB* @ Tx-Tx spacing = 250 kHz, Insertion Loss 5.0 dB & freq. 758 - 776 MHz > 55 dB* @ Tx-Tx spacing = 500 kHz, Insertion Loss 4.0 dB & freq. 758 - 776 MHz > 60 dB* @ Tx-Tx spacing = 1000 kHz, Insertion Loss 3.0 dB & freq. 758 - 776 MHz *If higher Combiner Tx-Tx Isolation is requested, please ask Customer Service for availability
VSWR	< 1.5:1
No. of channels	3 (If 2 ch. or more than 3 ch. is requested, please ask Customer Service for availability)

Mechanical	
Connection(s)	N(f)
Dimensions	19" x 4 HU x 400 mm (excl. conn.) (482.6 x 177 x 400 mm) / 19 x 6.97 x 15.75 in.
Weight	Approx. 11.5 kg / 25.35 lb.

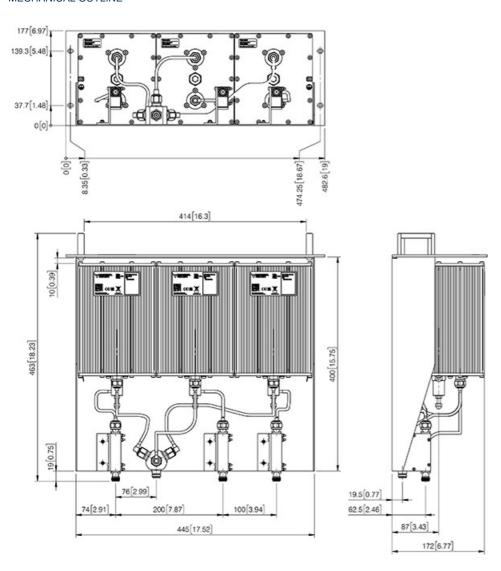
Environmental	
Operating temperature range	-30 °C to +60 °C (-22 °F to +140 °F)

#### **ORDERING**

Model	Product No.
PRO-CAV800-3DI-4HU-SQ/758 - 776 MHz	Contact for product No.



## MECHANICAL OUTLINE



All dimensions are given in mm [in.]

PROCOM A/S reserves the right to

amend specifications without prior notice