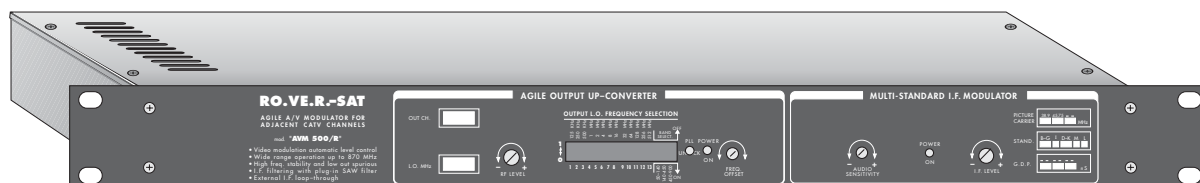


mod. "AVM 500/R"

AGILE AUDIO/VIDEO MODULATOR FOR ADJACENT CATV CHANNELS

- ALL STANDARDS AVAILABLE (B-G-I-D-K-L-M-N)
- ADJACENT CHANNEL OPERATION IN ALL BANDS UP TO 870 MHz
- AUTOMATIC LEVEL CONTROL OF VIDEO MODULATION DEPTH (A.L.C.)
- CONVENIENT FRONT PANEL TUNING CONTROLS AND ADJUSTMENTS
- DIRECT DIP-SWITCH FREQ. SELECTION (NO VOLATILE MEMORY)
- P.L.L. SYNTHESIZED TUNING ASSURES FREQUENCY STABILITY
- FREQUENCY OFF-SET ADJUSTMENT FOR PRECISE CHANNEL ALLOCATION
- SAW FILTERED FOR OPTIMUM VESTIGIAL SIDE BAND CHARACTERISTICS
- EXT. I.F. LOOP-THROUGH, ALLOWS SIGNAL REPLACEMENT WITH AN ALTERNATIVE I.F. SOURCE
- PLUG-IN OUTPUT FILTER TO ASSURE THE BEST SPURIOUS REDUCTIONS
- LOW OPERATING CONSUMPTION AND TEMPERATURE



10

TECHNICAL SPECIFICATIONS

RF OUTPUT

- **Output freq. range:** 47-880 MHz
- **Output impedance:** 75 Ω
- **Output return loss:** ≥ 14 dB (16 dB typ.)
- **Output level:** 90 dB μ V (95 max.)
- **Output control range:** 20 dB
- **Sound/pict. carr. ratio:** 14/20 dB int. adj.
- **Frequency accuracy:** 1 KHz adj. off-set
- **Out spurious product:** ≤ 62 dB (65 dB typ.)

IF IN-OUT

- **Output level:** 80 dB μ V adj.
- **IN/OUT Impedance:** 75 Ω
- **IN/OUT return loss:** ≥ 14 dB (16 typ.)

AUDIO

- **Audio IN level range:** -6/+3 dBm adj.
- **Audio Impedance:** 10 K Ω unbalanced
- **Audio freq. accuracy:** ≥ 1 KHz
- **Audio pre-emphasis:** 50 μ S (75 on request)
- **Audio freq. response:** 20-20'000 Hz ± 1 dB
- **Audio distortion:** 1%

VIDEO

- **Video input level range:** 0.5-1.5 VpV (with A.L.C.)
- **Video impedance:** 75 Ω
- **Video modulation depth:** 87.5% automatic
- **Video freq. response:** ± 1 dB 25 Hz to 4.43 MHz
- **Signal/noise ratio:** ≥ 57 dB W

- **Differential gain:** $\leq 5\%$ (3% typ.)
- **Differential phase:** $\leq 5^\circ$ (3 $^\circ$ typ.)

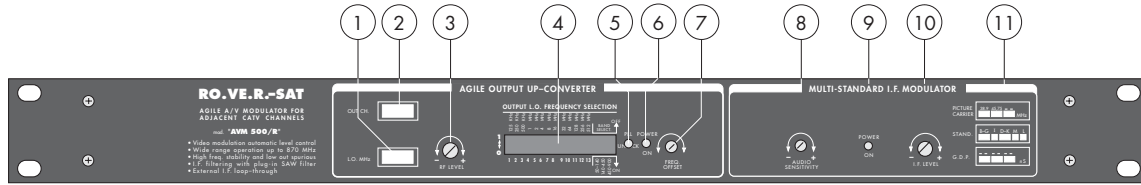
OTHERS

- **Power:** +12V * 275 mA (or 110/220V optional)
- **RF/IF connector:** "F" type
- **A/V connector:** "RCA" type
- **+12 V volt. connector:** female $\varnothing 2.4$ mm
- **Operating temp.:** -25/+60 $^\circ$ C
- **Relative humidity:** 90%
- **Dimensions:** (1 unit rack) 520 x 230 x 46 mm
- **Weight:** 2.4 Kg (with +12 V ext. P.S.U.)

mod. "AVM 500/R"

AGILE AUDIO/VIDEO MODULATOR FOR ADJACENT CATV CHANNELS

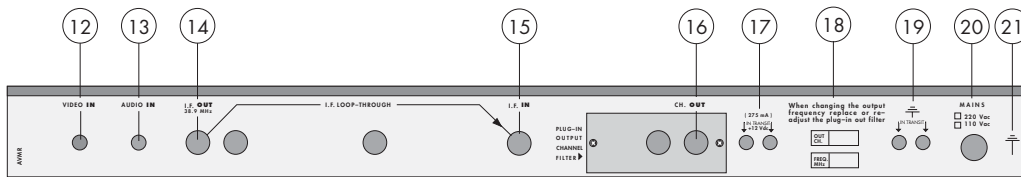
FRONT PANEL DESCRIPTION



- | | |
|--|---|
| 1 Up converter L.O. frequency (label) | 7 Up converter off-set freq. tuning (trim.) |
| 2 Output channel (label) | 8 IF modulator audio sensitivity adj. (trim.) |
| 3 RF output level adjustment (att.) | 9 IF modulator power on (LED) |
| 4 Up conv. L.O. & band freq. select (dipsw.) | 10 IF modulator output level adj. (att.) |
| 5 Up converter P.L.L. un lock (LED) | 11 IF modulator setting (labels) |
| 6 Up converter power on (LED) | |

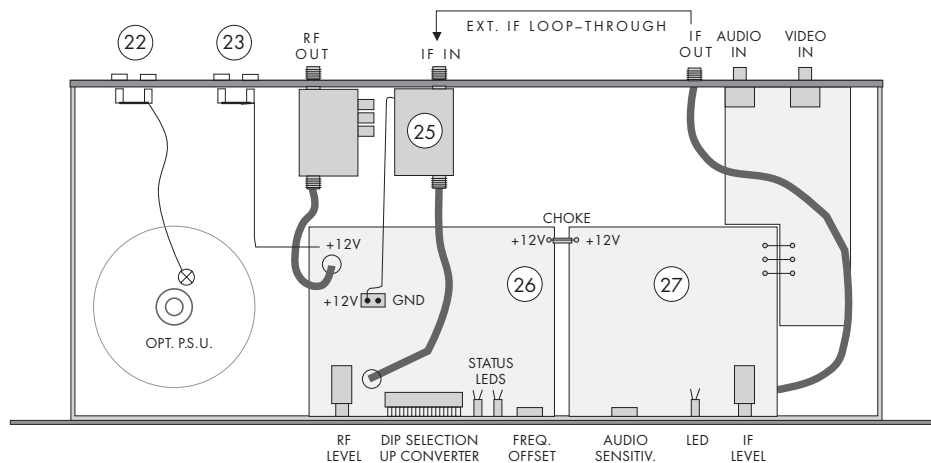
BACK PANEL DESCRIPTION

10



- | | |
|---------------------------------------|---|
| 12 Video input ("RCA" connector) | 17 Opt. P.S.U. +12 Vdc (in transit conn.) |
| 13 Audio input ("RCA" connector) | 18 Output chan. & L.O. freq. (labels) |
| 14 Output ("F" connector) | 19 Opt. P.S.U. ground (in transit conn.) |
| 15 Up converter I.F. input ("F" con.) | 20 Mains, 220 Vac or 110 Vac (label) |
| 16 RF (chan.) output ("F" connector) | 21 Ground screw |

INSIDE VIEW

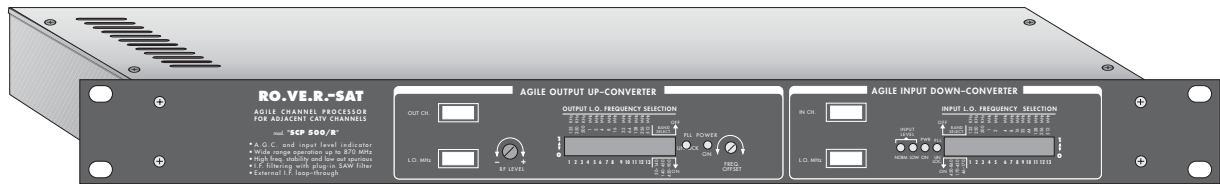


- | | |
|---|--|
| 22 P.S.U. ground (in transit connectors) | 25 Plug-in IF SAW filter, mod "OIF 500/.." |
| 23 P.S.U. +12V (in transit connectors) | 26 Up converter (board) |
| 24 Plug-in output select. filter, mod "OCF 500/A.." | 27 IF modulator (board) |

mod. "SCP 500/R"

AGILE SINGLE CHANNEL PROCESSOR FOR ADJACENT CATV CHANNELS

- ALL STANDARDS AVAILABLE (B-G-I-D-K-L-M-N)
- A.G.C. & LOW IN SIGNAL INDICATOR
- ADJACENT CHANNEL OPERATION IN ALL BANDS UP TO 870 MHz
- DUAL HETERODYNE CONVERSION THROUGH I.F.
- CONVENIENT FRONT PANEL TUNING CONTROL AND ADJUSTMENT
- DIRECT DIP-SWITCH FREQ. SELECTION (NO VOLATILE MEMORY)
- DUAL P.L.L. SYNTHESIZED TUNING ASSURES FREQUENCY STABILITY
- FREQUENCY OFF-SET ADJUSTMENT FOR PRECISE CHANNEL ALLOCATION
- SAW FILTERED TO ASSURE EXCELLENT CH. SELECTIVITY & FLAT GROUP DELAY
- EXT. I.F. LOOP-THROUGH, ALLOWS SIGNAL REPLACEMENT WITH AN ALTERNATIVE I.F. SOURCE
- PLUG-IN OUTPUT FILTER TO ASSURE THE BEST SPURIOUS REDUCTIONS
- LOW OPERATING CONSUMPTION and TEMPERATURE



TECHNICAL SPECIFICATIONS

RF INPUT

- **Input freq. range:** 41-862 MHz
- **Input impedance:** 75 Ω
- **Input level range:** 50-90 dBμV (70 nominal)
- **Noise figure:** 7 dB ±2
- **A.G.C. level range:** ±10 dB
- **A.G.C. stability:** ±1 dB
- **Image freq. rejection:** ≥70 dB
- **Adjacent chan. rejection:** ≥60 dB

RF OUTPUT

- **Output freq. range:** 47-880 MHz
- **Output impedance:** 75 Ω

- **Output return loss:** ≥14 dB (16 dB typ.)
- **Output level:** 90 dBμV (95 max.)
- **Output control range:** 20 dB
- **Frequency accuracy:** 5 KHz adj. off-set
- **Out spurious product:** ≤62 dB (65 dB typ.)

IF IN-OUT

- **Output level:** 80 dBμV adj.
- **IN/OUT Impedance:** 75 Ω
- **IN/OUT return loss:** ≥14 dB (16 dB typ.)
- **Sound/pict. carr. ratio:** 10 dB adj. (optional)

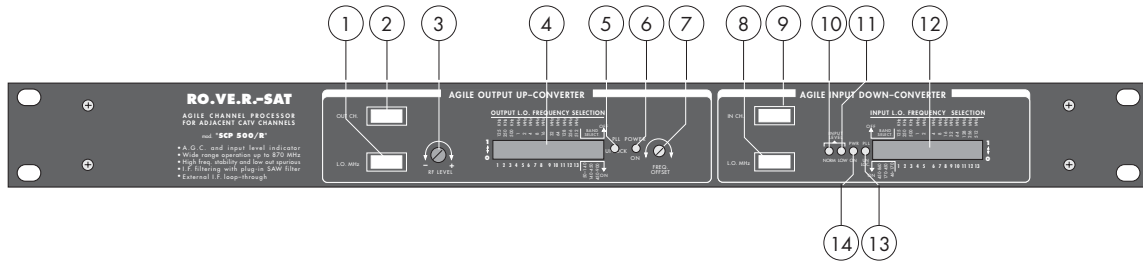
OTHERS

- **Power:** +12V * 405 mA (or 110/220V optional)
- **RF/IF connector:** "F" type
- **+12V volt. connector:** female Ø2.4 mm
- **Operating temp.:** -25/+60°C
- **Relative humidity:** 90%
- **Dimensions:** (1 unit rack) 520 x 230 x 46 mm
- **Weight:** 2.7 Kg (with +12V ext. PSU)

mod. "SCP 500/R"

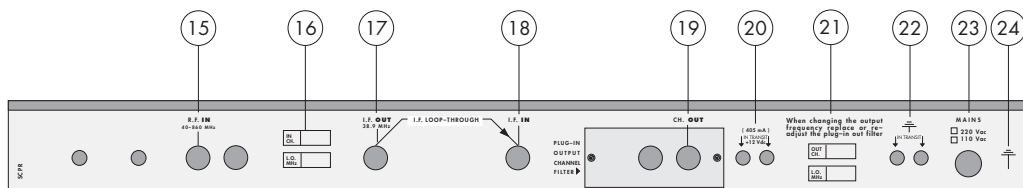
AGILE SINGLE CHANNEL PROCESSOR FOR ADJACENT CATV CHANNELS

FRONT PANEL DESCRIPTION



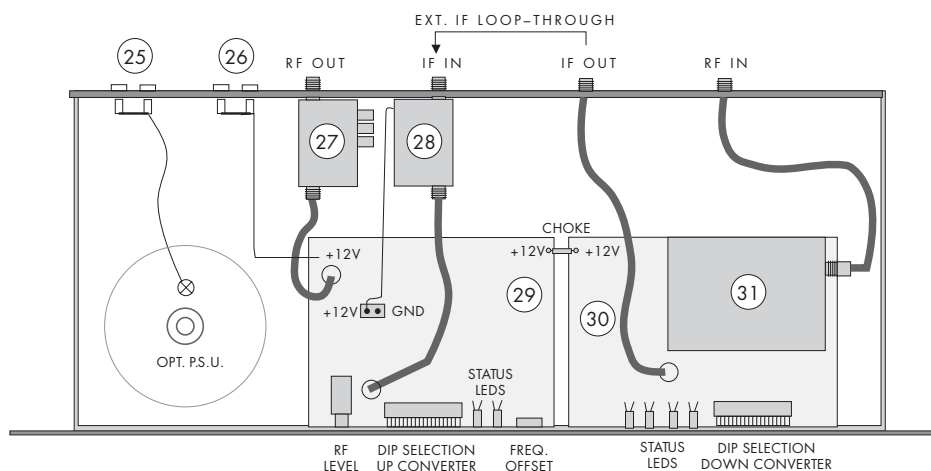
- | | |
|---|--|
| <ul style="list-style-type: none"> 1 Up converter L.O. frequency (label) 2 Output channel (label) 3 RF output level output adjustment (att.) 4 Up conv. L.O. freq. & band select (dipsw.) 5 Up converter P.L.L. unlocked (LED) 6 Up converter power on (LED) 7 Up converter off-set freq. tuning (trim.) | <ul style="list-style-type: none"> 8 Down converter L.O. frequency (label) 9 Down converter Input channel (label) 10 Normal RF input level (LED) 11 Low RF input level (LED) 12 Down conv. L.O. freq. & band selec. (dipsw.) 13 Down converter P.L.L. unlocked (LED) 14 Down converter power on LED |
|---|--|

BACK PANEL DESCRIPTION



- | | |
|--|---|
| <ul style="list-style-type: none"> 15 RF input ("F" connector) 16 Down converter setting (labels) 17 Down converter IF output ("F" conn) 18 Up converter IF input ("F" conn.) 19 RF (chan) output ("F" connector) | <ul style="list-style-type: none"> 20 Opt. P.S.U. +12 Vdc (in transit conn.) 21 Up converter setting (labels) 22 Opt. P.S.U. ground (in transit connect.) 23 Mains, 220 or 110 Vac (label) 24 Ground screw |
|--|---|

INSIDE VIEW

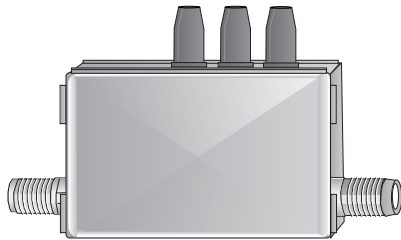


- | | |
|--|--|
| <ul style="list-style-type: none"> 25 P.S.U. ground (in transit connectors) 26 P.S.U. +12V (in transit connectors) 27 Plug-in out. select. filter, mod. "OCF 500/A.." 28 Plug-in I.F. saw filter, mod. "OIF 500/..." | <ul style="list-style-type: none"> 29 Up converter (board) 30 Down converter (board) 31 Tuner |
|--|--|

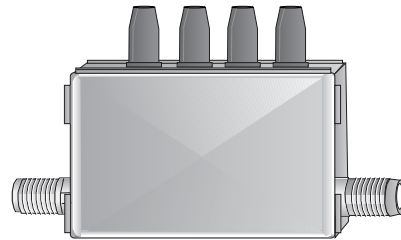


mod. "OCF 500/..."

VHF & UHF FAMILY OF FILTERS WITH HIGH SELECTIVITY FOR CATV HEAD-ENDS
WITH 1 INPUT & 1 OUTPUT, SUPPLIED ONLY ADJUSTED TO A SPECIFIC CHANNEL, WITH OR WITHOUT TRAP



mod. "OCF 500/..."
VHF/UHF



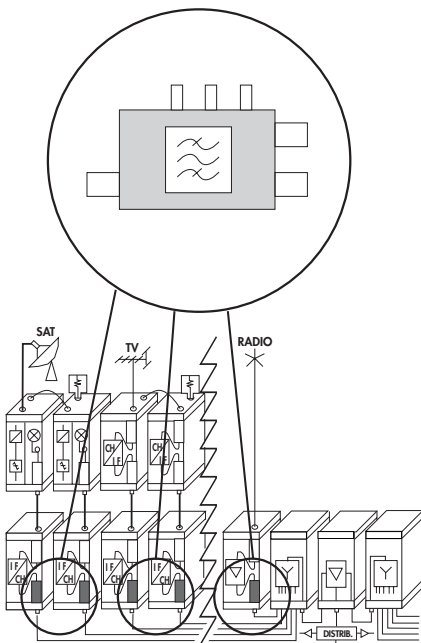
mod. "OCF 500/T..."
VHF/UHF

- ALL BANDS UP TO 870 MHz
- AVAILABLE IN ALL STANDARDS: B, G, I, D, K, M, L

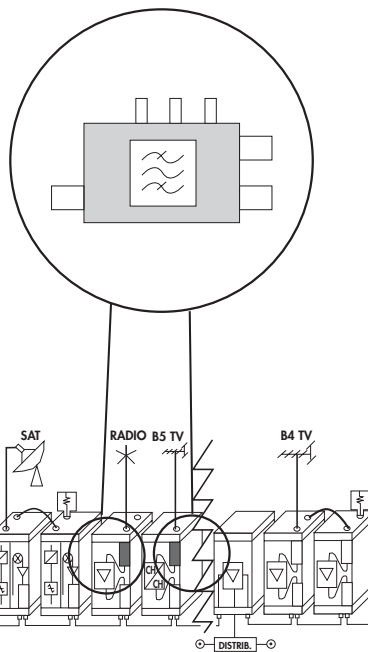
- EASY TO READJUST USING RO.VE.R. MEASURING INSTRUMENTS

- CAN BE INSERTED IN THE CONVERTERS, MODULATORS, PROCESSORS AND AMPLIFIERS DIRECTLY AT THE TIME OF SALE

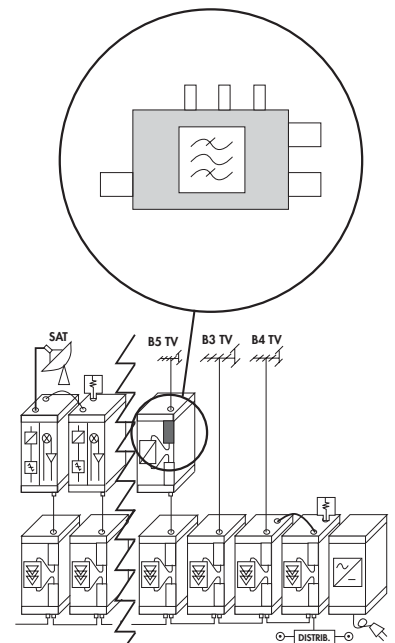
INSTALLATION EXAMPLE



ADJACENT CHANNEL CATV HEAD-END, UP TO 870 MHz, >60 dB SPURIOUS FREE



ALTERNATE CHANNEL SMATV HEAD-END WITH VHF-UHF WIDE BAND POWER AMPLIFIER



LOW COST ALTERNATE CH. SMATV HEAD-END WITH HIGH GAIN & HIGH LEVEL CH. AMPLIFIER

REDUCE DELIVERY TIME & STOCK, INCREASE AVAILABILITY & PRODUCT RANGE, WITH THE PLUG-IN FILTER TECHNIQUE

THE REVOLUTIONARY PLUG-IN FILTER TECHNIQUE ALLOWS YOU TO HAVE IN STOCK ONLY ONE UNIVERSAL MODEL FOR EACH FAMILY OF PRODUCTS AND QUICKLY ADAPT IT TO ANY CHANNEL BY SIMPLY INSERTING THE IN-OUT PLUG-IN CH. FILTERS. THE PLUG-IN

CH. FILTERS ARE THE SAME FOR ALL FAMILIES OF PRODUCTS. THE CHANNEL FILTERS ARE ONLY SUPPLIED ADJUSTED FOR ANY TV OR CABLE BAND OF ANY TV STANDARD AND THEY ARE QUITE EASY TO READJUST USING RO.VE.R. INSTRUMENTS SUCH AS THE MULTI-

FUNCTION CATV/SMATV ANALYZER. THE PLUG-IN FILTERS CAN BE INSERTED IN THE SYNTHESIZED CHANNEL CONVERTER AND A/V MODULATORS; IN THE CHANNEL PROCESSOR AND CHANNEL AMPLIFIER, DIRECTLY AT THE TIME OF SALE.

mod. "OCF 500/..."

VHF & UHF FAMILY OF FILTERS WITH HIGH SELECTIVITY FOR CATV HEAD-ENDS
WITH 1 INPUT & 1 OUTPUT, SUPPLIED ONLY ADJUSTED TO A SPECIFIC CHANNEL, WITH OR WITHOUT TRAP

TECHNICAL SPECIFICATIONS

RF

- **IN-OUT frequency:**
46-870 MHz
(40 MHz on request)
- **Bandwidth at -3 dB:**
6-7 or 8 MHz
(according to the standard)
- **Selectivity:**
VHF ± 7 MHz = -12 dB
 ± 14 MHz \leq -30 dB
UHF ± 8 MHz = -20 dB
 ± 16 MHz \leq -30 dB
- **Insertion loss:**
VHF = 4 - 5 dB
UHF = 4 - 5 dB
- **Return loss:**
VHF = 14 dB typ. (12 min.)
UHF = 16 dB typ. (12 min.)
- **Impedance:**
75 Ω ("F" connector)

OTHERS

- **External plating of metal box:**
all models with silver plate
- **Operating temperature:**
from -25 to +60°C
- **Relative humidity:** $\geq 90\%$
- **Dimensions:**
H: 42 x W: 76 x D: 20 mm
- **Weight:** 60 g

FREQUENCY TABLE

High selectivity filters, with 1 input and 1 output:

mod. OCF 500/A-01	49-65 MHz
mod. OCF 500/A-02	77-107 MHz
mod. OCF 500/FM-03	88-108 MHz
mod. OCF 500/A-03S	108-129 MHz
mod. OCF 500/A-04	130-160 MHz
mod. OCF 500/A-05	165-220 MHz

mod. OCF 500/A-06	225-380 MHz
mod. OCF 500/A-07	390-465 MHz
mod. OCF 500/A-08	470-600 MHz
mod. OCF 500/A-10	600-880 MHz

The "OCF 500/TA..." is also available and includes a channel trap with 10/18 dB atten.:

mod. OCF 500/TA-01	49-65 MHz
mod. OCF 500/TA-02	77-107 MHz
mod. OCF 500/TA-03S	108-129 MHz
mod. OCF 500/TA-04	130-160 MHz
mod. OCF 500/TA-05	165-220 MHz
mod. OCF 500/TA-06	225-380 MHz
mod. OCF 500/TA-07	390-465 MHz
mod. OCF 500/TA-08	470-600 MHz
mod. OCF 500/TA-10	600-880 MHz

The "OCF 500/A..." and "OCF 500/TA..." may only be ordered adjusted *

* always specify the channel when ordering (and trap frequency rejection)

INSIDE VIEWS

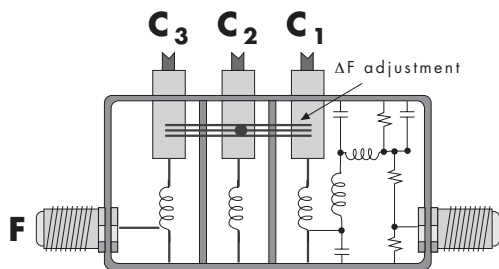


Fig. 1: **B I**

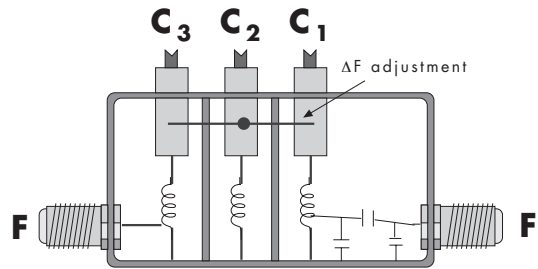


Fig. 2: **B III**

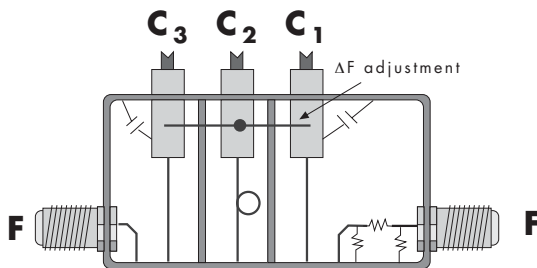


Fig. 3: **B IV**

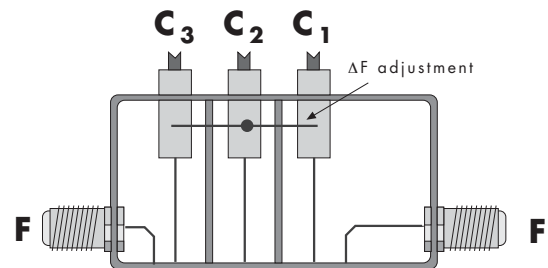


Fig. 4: **B V**