

TJA2 SERIES

Auto-tunable combiner, 132-174 MHz

- Fully automated in detecting and tuning each channel to Tx frequency for flexible applications
- Comprehensive remote alarm monitoring
- Minimum Tx-Tx frequency spacing of 150kHz and wide tuning range
- Low insertion loss and high isolation

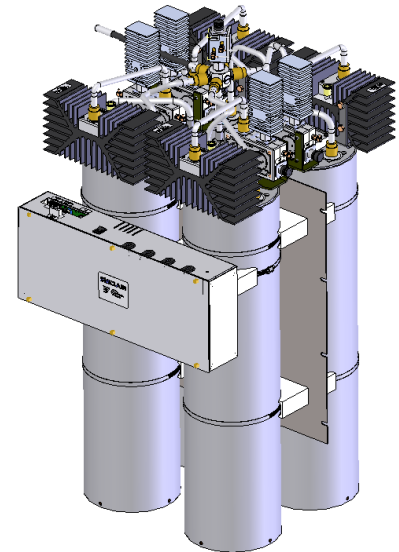
The new TJA series combiner features an integrated control unit for fully autonomous frequency tuning to keep return loss to a minimum and optimize overall performance. This allows the combiner to be used in unconventional ways to satisfy customers' unique needs.

The TJA combiner is designed with high unloaded quality factor, wide tuning range, high linearity, high power handling, low weight, compact dimension, and outstanding reliability. Remote control and system monitoring are supported via Ethernet/IP connection.

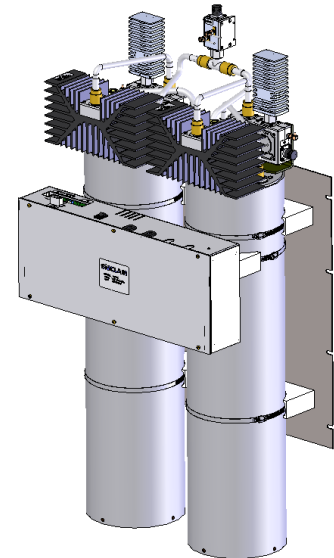
Specifically, the TJA2 series covers 132-174 MHz in the VHF band and comes in 2 or 4 channel base configurations.

Key features:

- * Quick tuning time
- * Wide tuning range: 4.85 MHz
- * Outstanding tuning accuracy: +/- 10 kHz
- * Comprehensive remote alarm monitoring including frequency, power, return loss, as well as antenna Tx power and VSWR of each carrier.
- * Wide power handling range from 10 to 100 Watts per channel
- * Tx-Tx spacing down to 150 kHz
- * User-friendly web-based GUI
- * Secure user administration with RBAC feature to manage users and their access rights



4 channel model



2 channel model

Combiner may not appear exactly as picture.

Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
Telephone	1 800 263 3275	+1 905 727 0165 ext. 232	Canada: 1 905 726 7676 International: +1 905 726 7676	+1 905 727 0165 ext. 287
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Product Specification Sheet		TJA2	Issue 2.1	Dated: 11-10-2023

ELECTRICAL SPECIFICATIONS							
Channel	2 CH		4 CH		6 CH		Note
Part number	TJA2212-2	TJA2212-3	TJA2214-2	TJA2214-3	TJA2216-2(E6754)	TJA2216-3(E6754)	
Frequency range	132-150 MHz	148-174 MHz	132-150 MHz	148-174 MHz	132-150 MHz	148-174 MHz	
Automatic Tx frequency detection	Yes						
Automatic re-tuning	Yes						
Tuning range	4.85 MHz			3 MHz ⁴			See next page
Tuning accuracy	± 10kHz						
Tuning Time	≤ 10 seconds						
Power Reading Accuracy	± 2 dB						
VSWR	Input (Max)	1.25 : 1					
	Output (Max)	2 : 1					
Insertion loss, Tx to Ant	Typ	2.9 dB	3.5 dB		4.5 dB		
	Max	3.2 dB	4.0 dB		5.3 dB		
Frequency separation	Max	4.85 MHz	4.85 MHz		3 MHz ⁴		
	Min	0.15 MHz					
Isolation	Tx to Tx	65 dB typ / 60 dB min					
	Antenna to Tx	55 dB typ / 50 dB min					
Input power per channel	10 to 100 Watts						
Other Interface	ETH/SNMP	RJ45					
Connector	Input	N-female ¹					See next page
	Output	N-female ¹					See next page
Power supply	Voltage	10-14 VDC					
	Current	2A	3A		6 A		
MECHANICAL SPECIFICATIONS							
Overall dimensions	Width	19" (483mm)					
	Height	34.5" (875mm) ²			2 CH module: 34.5" (875mm) ² 4 CH module: 34.5" (875mm) ²		See next page
	Depth	11.1" (282mm)	20" (508mm)		2 CH module: 11.1" (282mm) 4 CH module: 20.0" (508mm)		
	Net Weight	47 lbs (22kg)	90 lbs (41kg)		140 lbs (63 kg) ³		See next page
Mounting	19" EIA rack		19" EIA rack		19" EIA rack ⁵		See next page
ENVIRONMENTAL SPECIFICATIONS							
Temperature range	-22 to +140 °F (-30 to +60 °C)						

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Note

1. Other options available, call for details.
2. Excluding harness and connector.
3. Total.
4. Wider tuning-range/separation available upon request, call for details.
5. The 6 channel TJA2216-(x)(E6754) supports flexible mounting in 19" rack. For racks with enough depth (eg > 36"/915mm), the 4 and 2 channel sub-modules could be placed in front and back fashion at the same level. If mounting in separate racks/cabinets is needed, keep the cabinets side by side (max 1 inch gap); any panels on the sides of the cabinets that face each other should be removed to allow for the cable connections. For racks with enough height (eg \geq 42U), the 4 and 2 channel sub-modules can be placed vertically within one rack.
Please call Sinclair Sales or Support to understand the details.
6. **Specify the exact frequency range when ordering.**

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