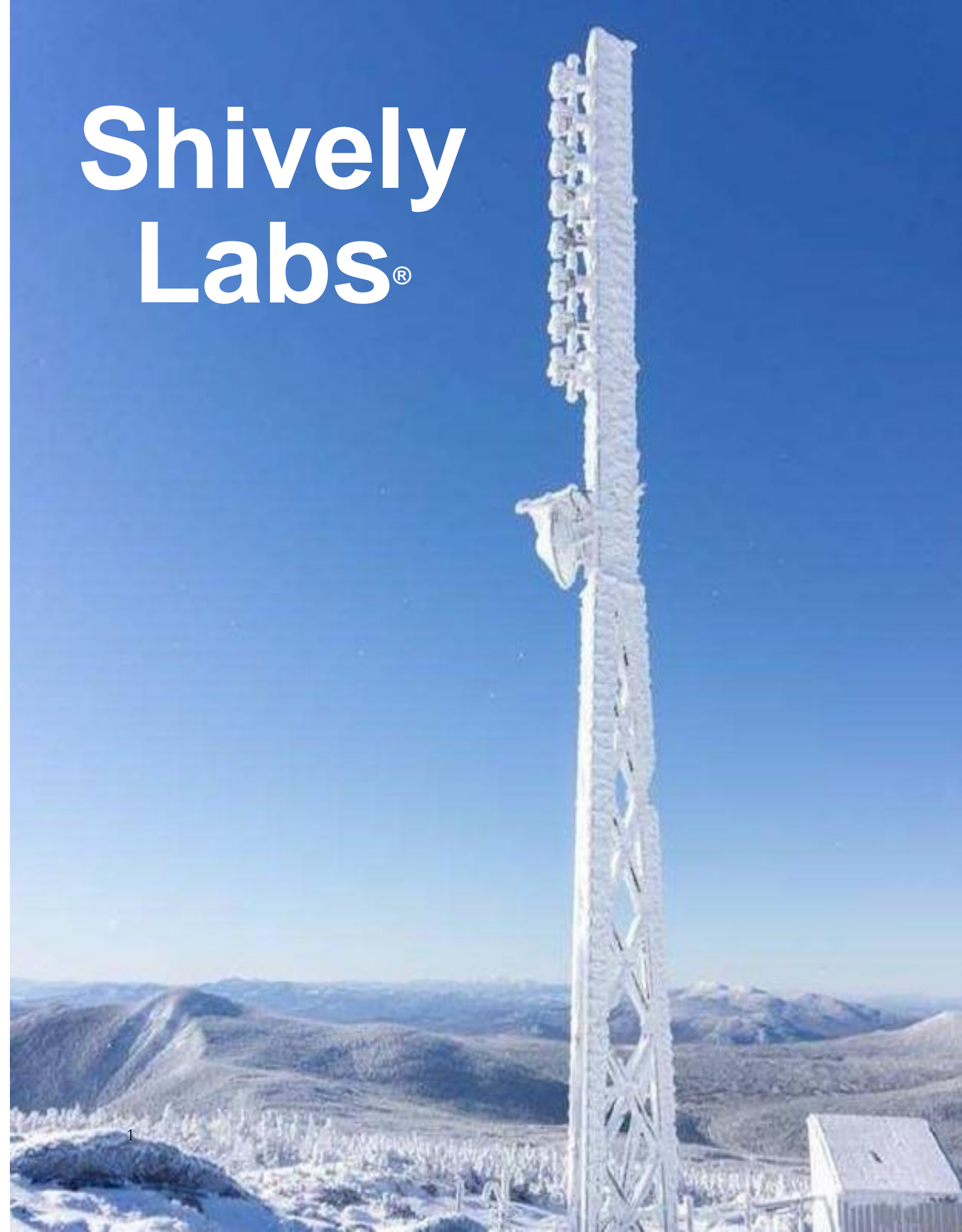


**Phone: 916-978-1899**

**Email: [sales@shively.com](mailto:sales@shively.com)**

# Shively Labs®



**About us**

**Shively Labs is celebrating fifty seven years of leadership in broadcast antenna system design and optimization. Our record with the FCC and regulatory agencies around the world is unsurpassed. We can operate throughout the RF spectrum, but FM is our passion, not just a sideline, and we've solved problems others couldn't even identify.**

**First, we listen to you; then we engineer the best solution for your unique situation - at any power level and under any site conditions; responsibly, reliably, and affordably.**

**Broadcasters worldwide trust us to provide what they need to know and not simply what they want to hear.**

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**Notes:**

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# ..... and antenna testing facilities

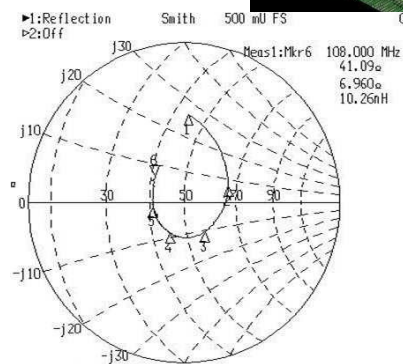
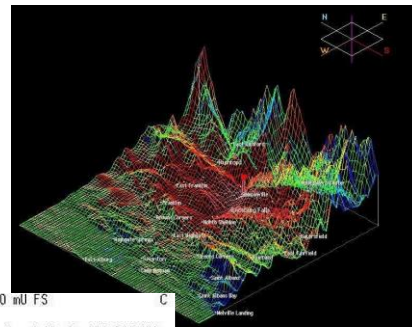
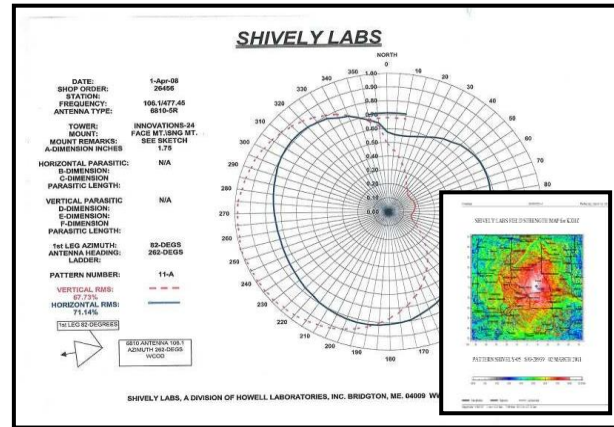
Once we have achieved your preferred pattern, we run complex computer simulations that consider terrain and environment to predict the typical coverage of your new station. No one can guarantee coverage once the signal leaves the antenna, but this is a helpful guide to how your station might perform

Finally—we manufacture custom stainless steel mounting brackets to ensure that your antenna performs both physically and mechanically in the real world.

Every system we build leaves the factory only after comprehensive impedance and pressurization testing.

We operate three separate impedance measurement facilities where we tune and adjust antennas to meet our strict quality standards.

Documentation is provided under ISO-9001:2015



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# Side Mount Antennas

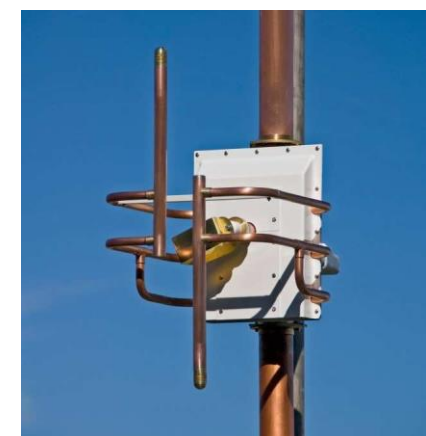
# Radiation Pattern Development .....

## Model 6828 – High Power



- True Circular Polarization
- Rugged stainless steel design
- Power rating up to 20 kW per bay
- Multiplexes to 11 MHz bandwidth
- Under 1.2:1 VSWR

## Model 6810 – High Power



- True Circular Polarization
- Excellent control for directional use
- Power rating up to 10 kW per bay
- Multiplexes over a 2.4 MHz bandwidth
- Includes fine matching transformer

## Model 6813 – Medium Power



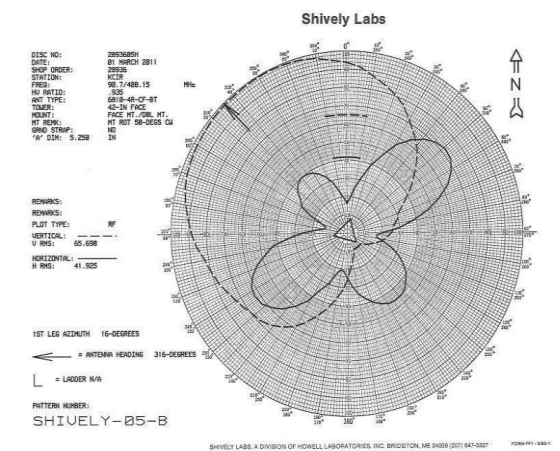
- True Circular Polarization
- Power rating up to 3 kW per bay
- Low weight and wind load
- Includes fine matching transformer

At Shively Labs, we understand how important it is to be heard. We have invested heavily in our state-of-the-art antenna test range and HFSS seats and software.

We can develop the most complex directional patterns or verify that your omni is truly omni!



The final radiation pattern depends on the interaction between the antenna and the tower. We also take careful consideration with what else is mounted on the tower and in the vicinity of the antenna.



We will work with you to produce a replica of your tower and antenna system. This includes feedlines and any other antennas mounted nearby the antenna.

We then determine the optimum mounting configuration for your antenna to achieve your preferred radiation pattern.



Models 6828, 6810, 6813 have optional radomes for icing protection.

Model 6810, 6813 have optional deicers for icing protection

# Coax and power dividers

## Coax Components



Complete line including: 7/8", 1-5/8", 3-1/8", 4-1/16" and 6-1/8"



# Side Mount Antennas

## Model 6815 – Medium Power & High Power



- Circular Polarization and lightweight
- Power rating up to 60 kW
- Directional Configurable
- Optional Fine-Matcher
- Combined Systems

## Shively Versa2tune/SLV– Medium Power



- Rugged stainless steel construction
- Power rating up to 2.5 kW single bay, 5 kW per 2 bay array
- No test equipment or experience is required to tune
- Field Assembled and Tunable 87.5 - 108 MHz with VSWR under 1.2:1
- No pressurization needed

## Models 6812B and 6812DIN – Low Power



- Circular Polarization and lightweight
- Power rating: 1 to 2 kW (DIN) per bay
- Perfect for translators and LPFM
- No pressurization needed
- Economical

Models 6815, 6812B, 6812DIN, SLV have optional radomes for icing protection.

Model 6812B, 6812DIN have optional deicers for icing protection

# Side Mount Antennas Broadband Use

## Model 6832 – Medium Power, Broadband



- Rugged stainless steel construction
- Power rating up to 2.5 kW per bay
- 87.5 -108 MHz under 1.3:1 VSWR
- No pressurization needed
- Elliptically polarized

## Model 6842 – Medium Power, Broadband



- Rugged stainless steel construction
- Power rating up to 7.5 kW per bay
- 87.5 -108 MHz under 1.3:1 VSWR
- Pressurization recommended
- Feedpoint radomes available
- Elliptically polarized

# RF tuning components

## Fine Matching Transformers



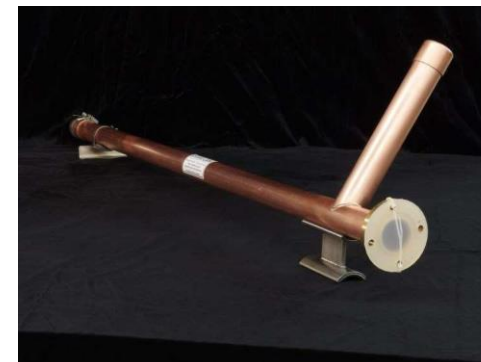
- Double-Stub, eighth-wave-length Pi network, using two simple plungers
- Standard on most side-mounted antennas
- Tunable under pressure and power
- Corrects tower-induced VSWR mismatches up to 1.5:1

## Broadband Fine Matching Transformers



- Three Stub, Broadband Tuner
- Does not need to be pressurized
- Compensate for VSWR as high as 1.35:1
- 1-5/8" and 3-1/8" options

## Harmonic Filters



- Connects in the output line from your transmitter
- Factory tuned provides over 40dB suppression
- Additional suppression possible with multiple resonators.

# Combiners

## Balanced/ Constant Impedance



- Power Levels from 1 to 60 kW input
- 2, 3 and 4 cavity filters
- Frequency separations to 600kHz
- Thermally compensated
- Industry leading performance.

- Interdigital technology
- Compact footprint
- Flexible solutions



## Branched/ Star point



- Power Levels from 1 to 40 kW input
- 2, 3 and 4 cavity filters
- Frequency separations to 600 kHz
- Cost-effective
- Combining up to 4 stations

# Broadband Antennas

## Model 6014 Panel



- True Circular Polarization
- Power rating up to 15 kW per panel
- Designed for 3-sided towers
- Rugged, stainless steel construction
- 87.5 -108 MHz under a 1.15:1 VSWR
- Directional capabilities

## Model 6016 Panel



- Circular polarization
- Rugged stainless steel construction
- Power rating 15 kW per panel
- 87.5 -108 MHz under 1.15:1 VSWR
- Designed for 4-sided towers
- Directional capabilities

## Model 6025 Log Periodic



- Rugged design
- Power rating up to 5 kW per bay
- 87.5 -108 MHz under 1.3:1 VSWR
- Versatile for multi directional patterns
- Pressurization recommended
- H , V or Slant polarization

## Bandpass Filters

### Single purpose and combinable

#### Model 2914 Low Power



- 2, 3 or 4 Pole Options
- Power rating up to 650 W - type N connector
- Lightweight and small for overhead mounting
- Easy install
- Feedback Loops optional for < 2 MHz spacing

#### Model 2916 Low Power



- 2, 3 or 4 Pole Options
- Power rating up to 1500 W—DIN connections
- Lightweight and small for overhead mounting
- Easy install
- Feedback Loops optional for < 2 MHz spacing

#### Model 2604 Low Power



- 3 and 4 Pole Options
- Power rating: 2.5 kW, to 4 kW with blowers
- 7/8" EIA input/output
- Feedback Loops optional for < 2 MHz spacing
- Easy install

## Bandpass Filters

### Single purpose and combinable

#### Model 2606 Medium Power



- 3 or 4 Pole Options
- Power rating: 5 kW, to 8 kW with blowers
- 1-5/8" Input/Output
- Feedback Loops optional for < 2 MHz spacing
- Easy Install

#### Model 2712 Medium Power



- 2, 3 or 4 Pole Options
- Power rating: 10 kW, to 15 kW with blowers
- 1-5/8" Input/Output
- Feedback Loops optional for < 2 MHz spacing
- Small footprint for power level

#### Model 2524 High Power



- 2, 3 or 4 Pole Options
- Power rating; 30 kW, 50 kW with blowers
- 3-1/8" Input, 4-1/16" Output
- Feedback Loops optional for < 2 MHz spacing