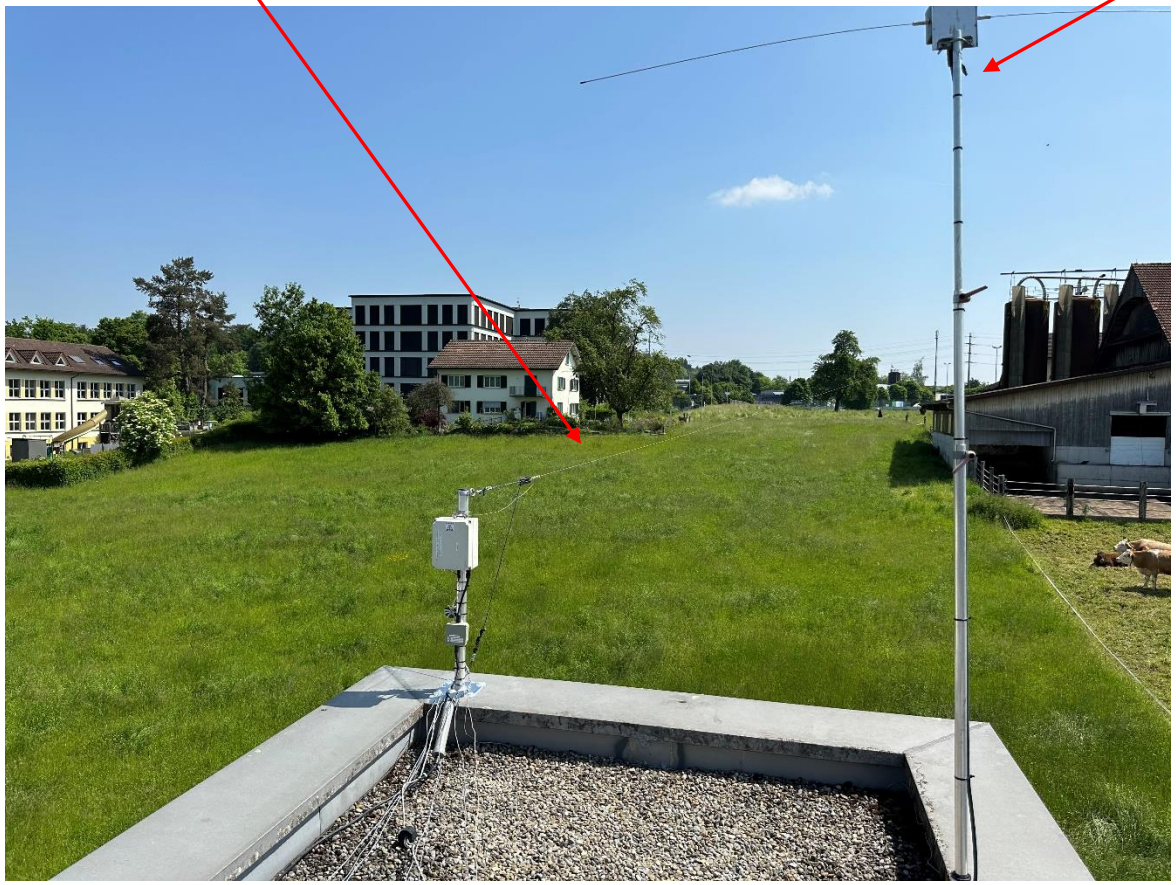
JC-4s Tuner with 54m DX-Wire Premium, 10m - 160m (1kW)

HB9RYZ – www.hb9ryz.ch
27.05.2023

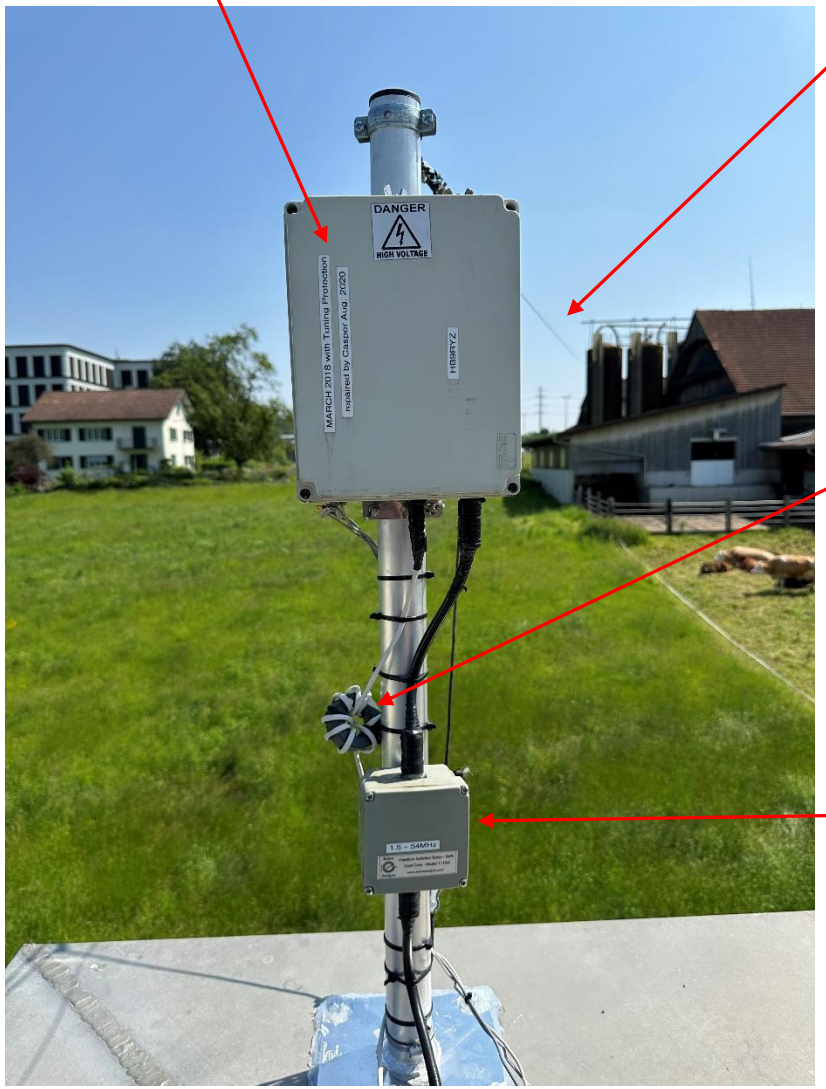
54m DX-Wire Premium
to the Silo

Active
Dipole
0-60 MHz
(RX only)



JC-4s Tuner

54m DX-Wire
Premium



1:1 Balun
Tuner Control
Wire

1:1 current
Balun (5KW)
Typ: 1115di from
Balun Designs

JC-4s Tuner with 54m DX-Wire Premium, 10m - 160m (1kW)

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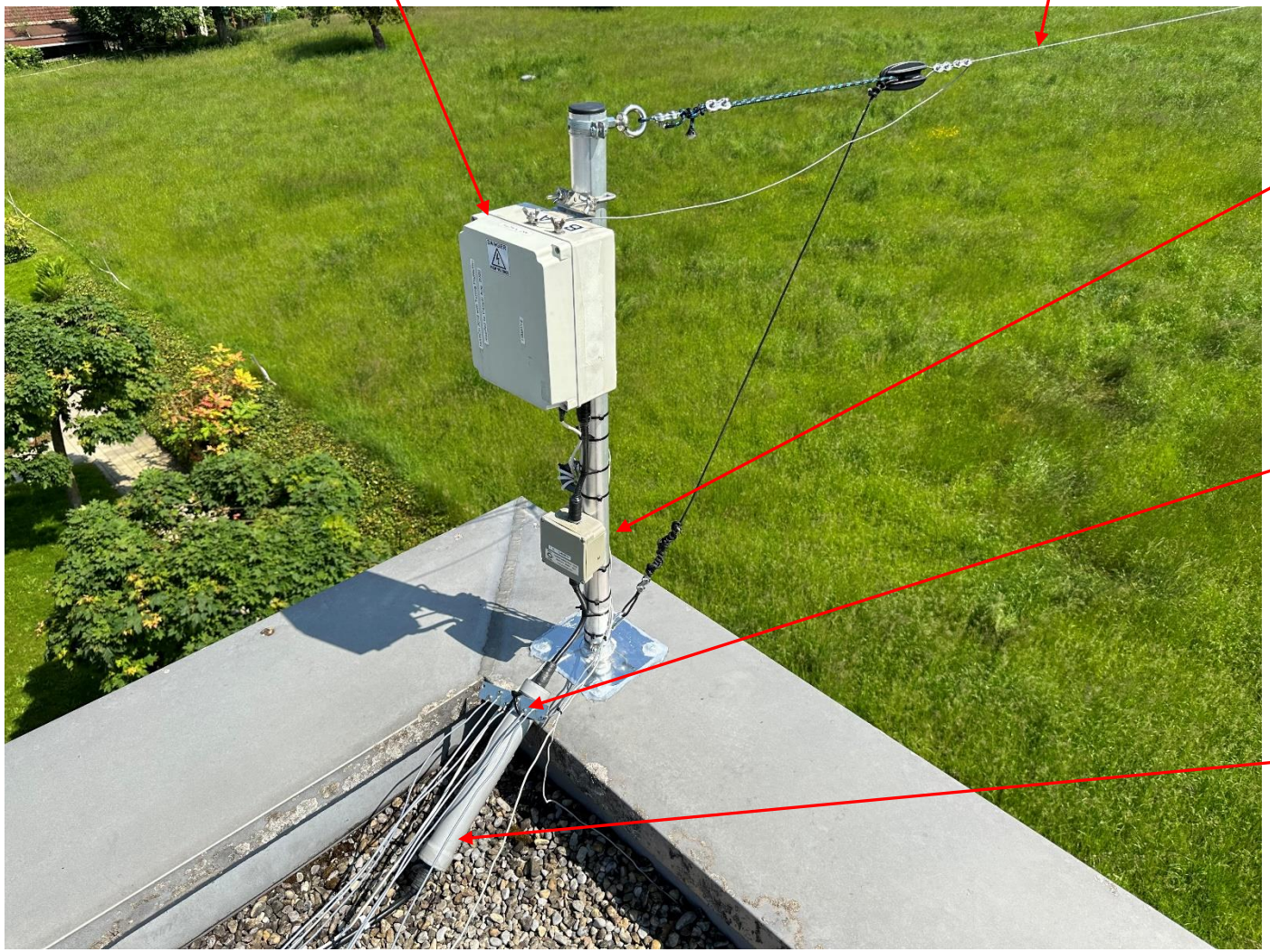

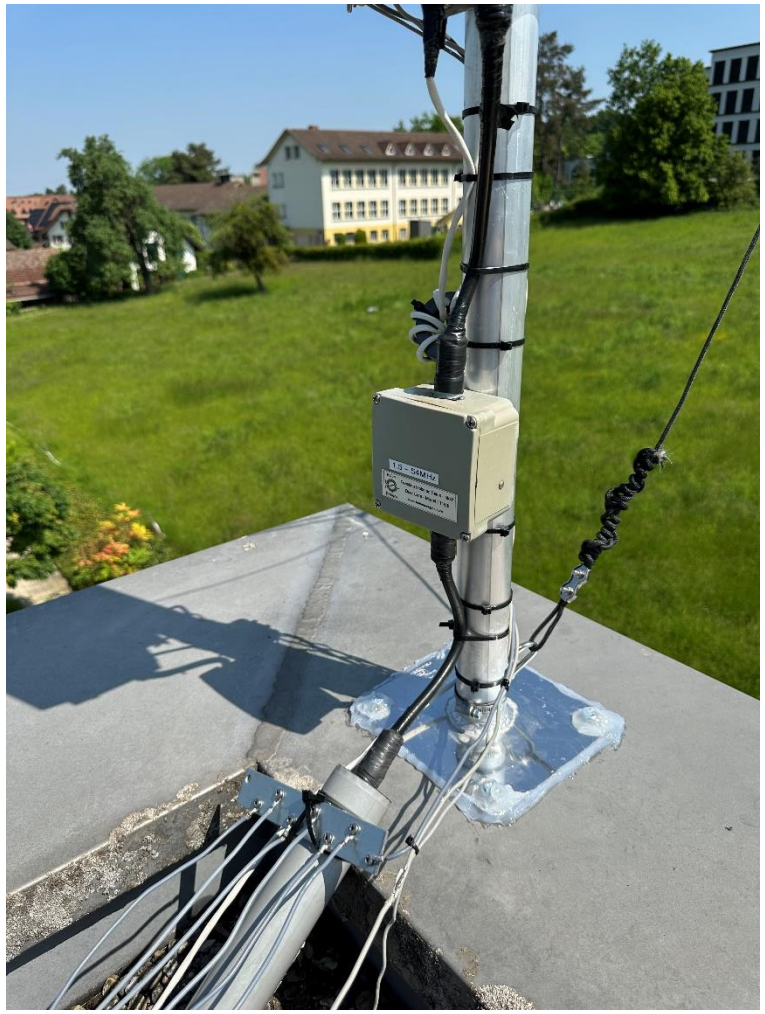

JC-4s Tuner with 54m DX-Wire Premium, 10m - 160m (1kW)

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JC-4s Tuner with 54m DX-Wire Premium, 10m - 160m (1kW)

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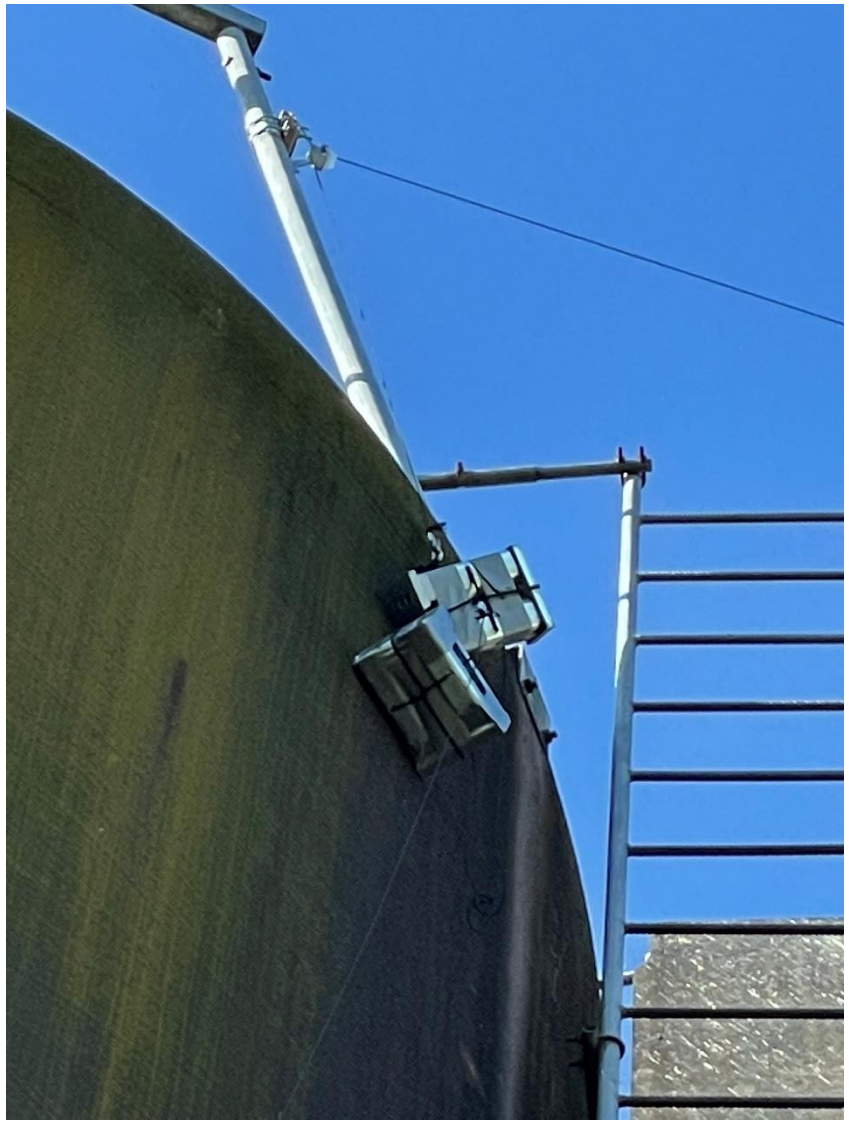
27m Kevlar Guy rope



JC-4s Tuner with 54m DX-Wire Premium, 10m - 160m (1kW)

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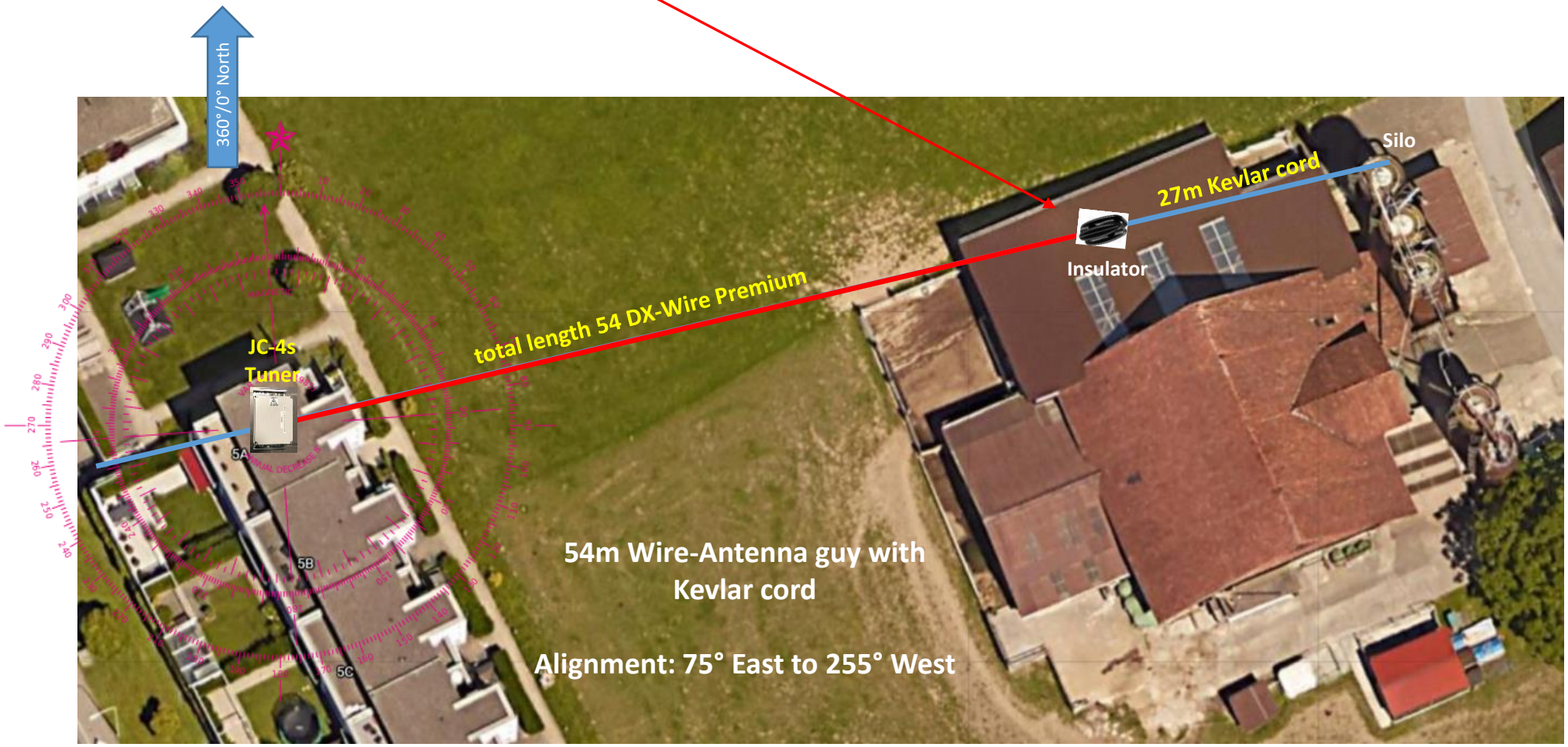
27.05.2022

DX-Wire Micro broke on 30. Nov. 2021 after 10m from the tuner due to snow.
Repaired in Jan. 2022 with 54m DX-Wire Premium



JC-4s Tuner with 54m DX-Wire Premium, 10m - 160m (1kW)

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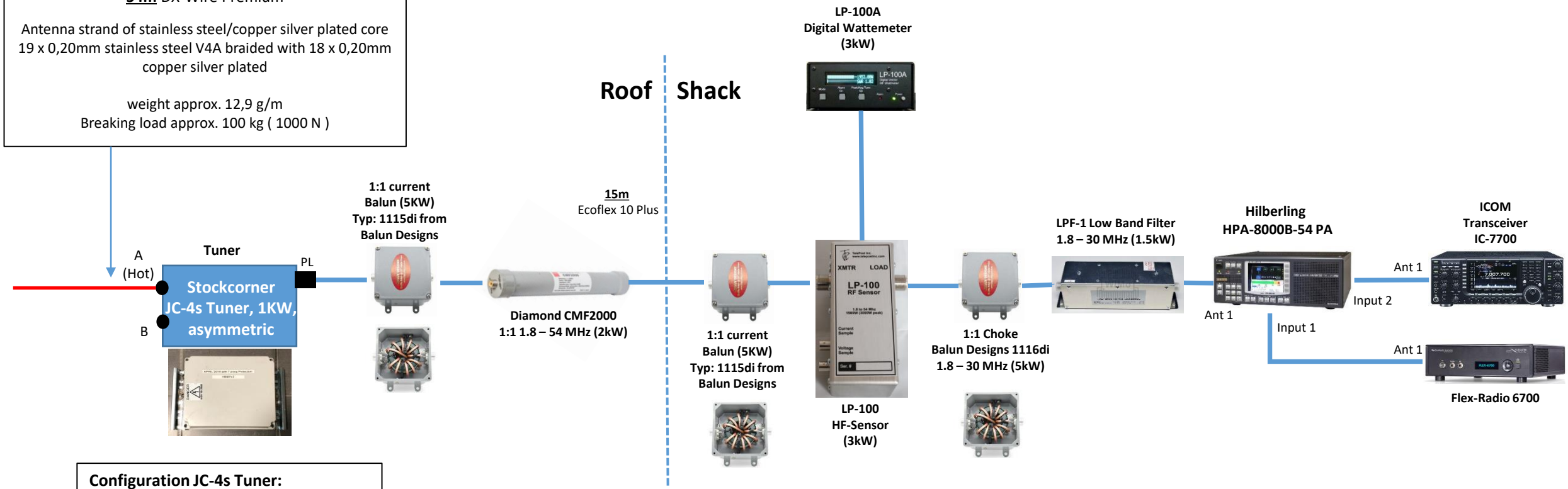
27.05.2023

54m DX-Wire Premium

Antenna strand of stainless steel/copper silver plated core
19 x 0,20mm stainless steel V4A braided with 18 x 0,20mm copper silver plated

weight approx. 12,9 g/m
Breaking load approx. 100 kg (1000 N)



Configuration JC-4s Tuner:
- Memory = **ON (Yes)**
- Wire at **A**
- Jumper: **GROUNDED (B = Ground)**

Hilberling PA Settings and Tuner Protection for JC-4s Tuner

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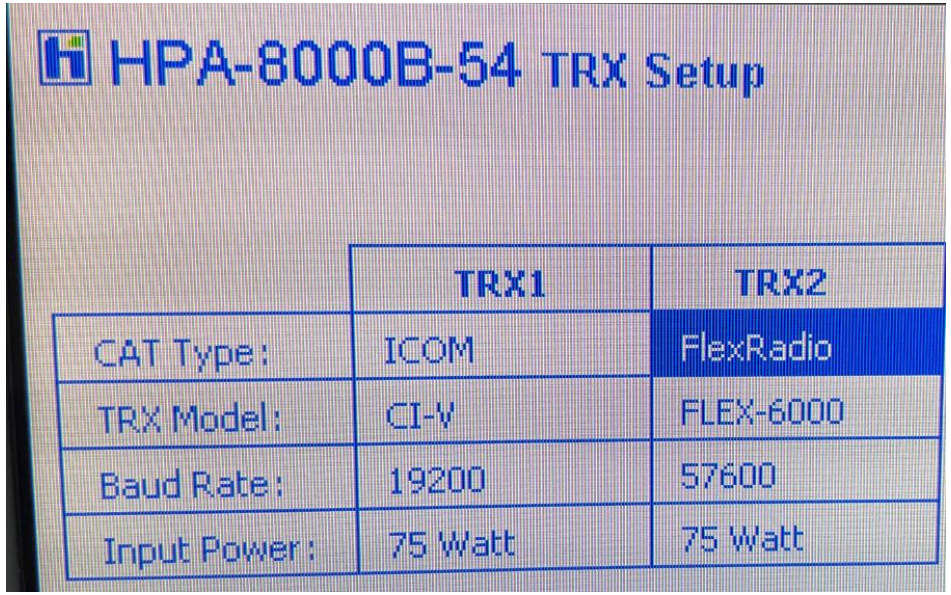
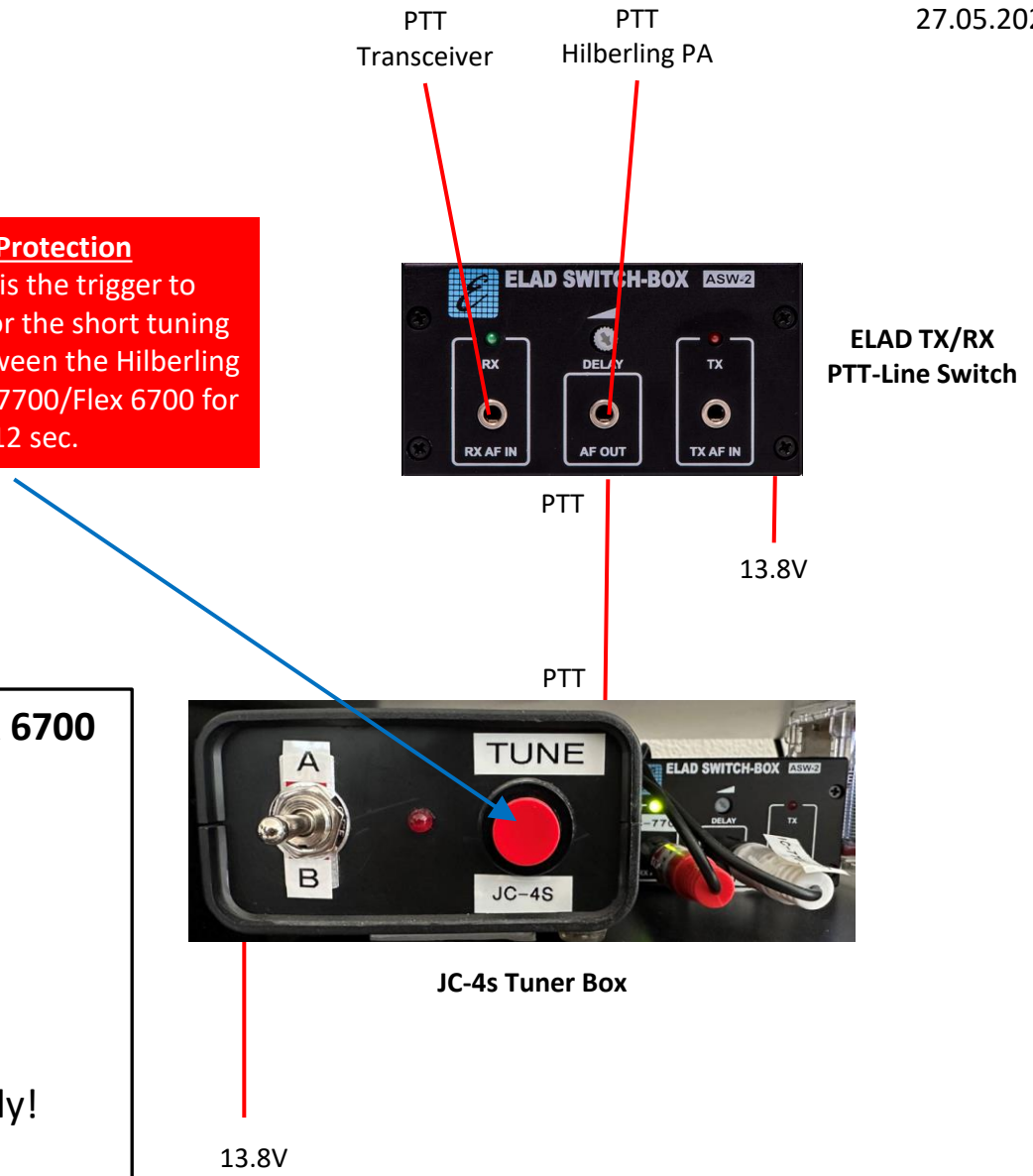


JC-4s Tuner-Protection
The **Tune-Button** is the trigger to break the PTT line for the short tuning period (4-6 sec.) between the Hilberling Amplifier and the IC-7700/Flex 6700 for at least 12 sec.



Stockcorner JC-4s tuning with 54m wire antenna with IC-7700 and Flex 6700

- Set TX to **AM** (15-20W for tuning) RF control to 10 o'clock
- Press **red tuner button** on JC-4s controller until LED lights up
- Transmit and wait until **red LED** turns OFF → SWR 1:1
- Set Hilberling PA to **OPERATE** and transmit
- Observe the **SWR** on the Hilberling PA and on the LP-100 A respectively!

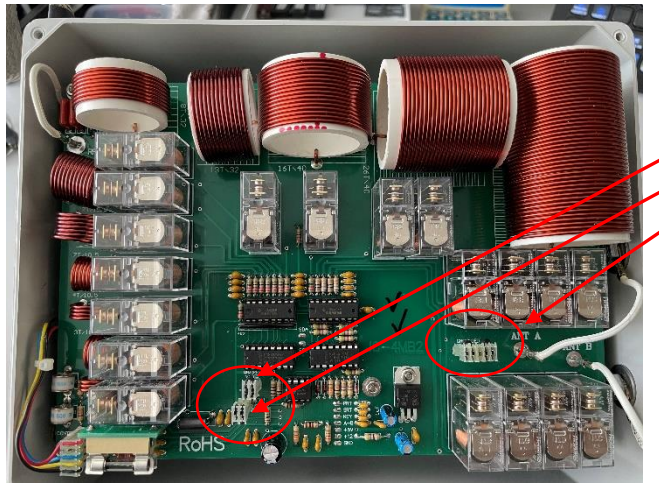
Attention:
Never tune when Hilberling PA is in OPERATE mode!!!!!
Despite my special tuner protection circuit

54m Wire-Antenna for 10m - 160m Operations with the Stockcorner JC-4s Tuner

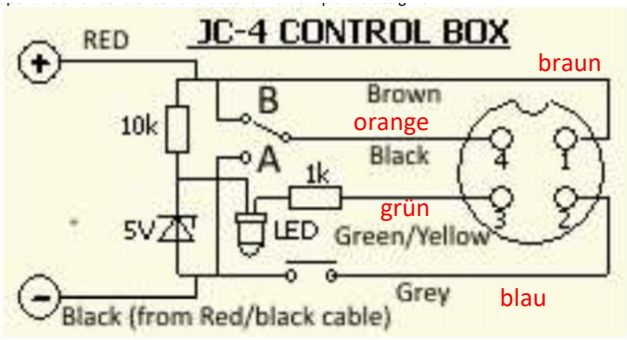
HB9RYZ – www.hb9ryz.ch
27.5.2023

Summary:

- Stockcorner Tuner JC-4s
- 54m DX-Wire Premium
- 15m (House) – 20m (Silo) above Ground
- 10m - 160m max. 1 kW
- Grounding via 6x 6m and 1x 17m radials (wire)
- 2x 1:1 Choke Balun Designs at the Tuner Input
- Grounding connection between IC-7700 and 13.8V Power Supply
- Guy robe from Kanirope, 1mm, Breaking load 100 daN(kg)



Konfiguration JC-4s Tuner:
- Memory = **ON (Yes)**
- Draht an **A**
- Jumper: **GROUNDED**



Remote Relay Board
Relay 1 = click shortly to start tune process

15m Control-Wire (8-Pol)

JC-4s Tuner (Roof) 4-Pol Plug		Solder-Connection		Solder-Connection		4-Pol Plug		JC-4s Tuner Box (Shack)
+ 12V	braun		rot		schwarz		braun	+ 12V
GND	grau		blau		weiss		blau	GND
LED	grün/gelb		grün		grün		grün	LED
A/B	schwarz		schwarz		rot		orange	A/B

Choke Balun Model 1115di - 1:1 Dual Core Isolation Balun, 1.5-54 Mhz, 5kW from Balun Designs

www.balundesigns.com

Core Material	Custom mix low permeability ferrite by Fair Rite Products for maximum bandwidth. Large 2.4 inch cores are coated and sealed for long term durability.
Winding Type	Stacked dual core, coaxial wound 1:1 current balun provides larger effective core area.
Winding Material	Mil Spec 50 ohm coax rated 19kW @ 1MHz, 9kW @ 10 Mhz and 4kW @50MHz. Silver flashed braid and center conductor with solid Teflon dielectric.
Power Rating	1 to 35 MHz - 5kW, 10kW intermittent. 35 to 54 MHz - 5kW. All ratings at resonance. High SWR will reduce power handling ability.
Useable Frequency	1 to 54 MHz
Insertion Loss	Less than .1db
Connectors	SO-239 connectors are gold center conductor with Teflon insulation. Alternate connectors and Mounting Options are available in the *Accessories* section.
Hardware	All Stainless Steel
Enclosure Type	NEMA rated 4x marine grade junction box for outdoor installations. Cover utilizes integral neoprene gasket for weatherproof integrity.
Dimensions	4x4x2 inches for main body of unit Dimensional Drawing of Standard Enclosure
Additional Info	Very high efficiency. Will not heat up or saturate at like many of the "less expensive" designs.

Our "i" series of feedline isolation baluns provide excellent feedline decoupling and, depending on the model selected, low loss performance across the full HF spectrum. The **model 1115di** is a dual core design that will handle 5kW at resonance with a 100% duty cycle, provides high common mode impedance and an extended effective core area for improved heat dissipation.

When your transceiver and other equipment in your shack acts strangely, it is probably due to stray RF pickup which produces a common mode current problem. This is especially apparent when using end-fed antennas, high-impedance feedlines, or a poor ground counterpoise. Problems can be more evident in SSB mode because the microphone audio line and mic circuitry may be very sensitive to RF. You can even get an RF burn from the mic in worst-case situations, not to mention from the chassis or other equipment used in the system.

Choke Balun Model 1116di - 1:1 Balun, Low Band Optimized, 1-31 Mhz, 5kW from Balun Designs

www.balundesigns.com

Core Material	Custom mix ferrite by Fair Rite Products optimized for low frequencies. Large 2.4 inch cores are coated and sealed for long term durability.
Winding Type	Stacked dual core, coaxial wound 1:1 current balun provides larger effective core area.
Winding Material	Mil Spec 50 ohm coax rated 19kW @ 1MHz, 9kW @ 10 MHz & 4kW @ 50 MHz. Silver flashed braid and center conductor with solid Teflon dielectric.
Power Rating	1 to 31 MHz - 5kW, 10kW intermittent, 31 to 54MHz - 3kW All ratings at resonance. High SWR will reduce power handling ability.
Useable Frequency	1 to 54 MHz
Insertion Loss	Less than .1db
Connectors	SO-239 connectors are gold center conductor with Teflon insulation. Alternate connectors and Mounting Options are available in the *Accessories* section.
Hardware	All Stainless Steel
Enclosure Type	NEMA rated 4x marine grade junction box for outdoor installations. Cover utilizes integral neoprene gasket for weatherproof integrity.
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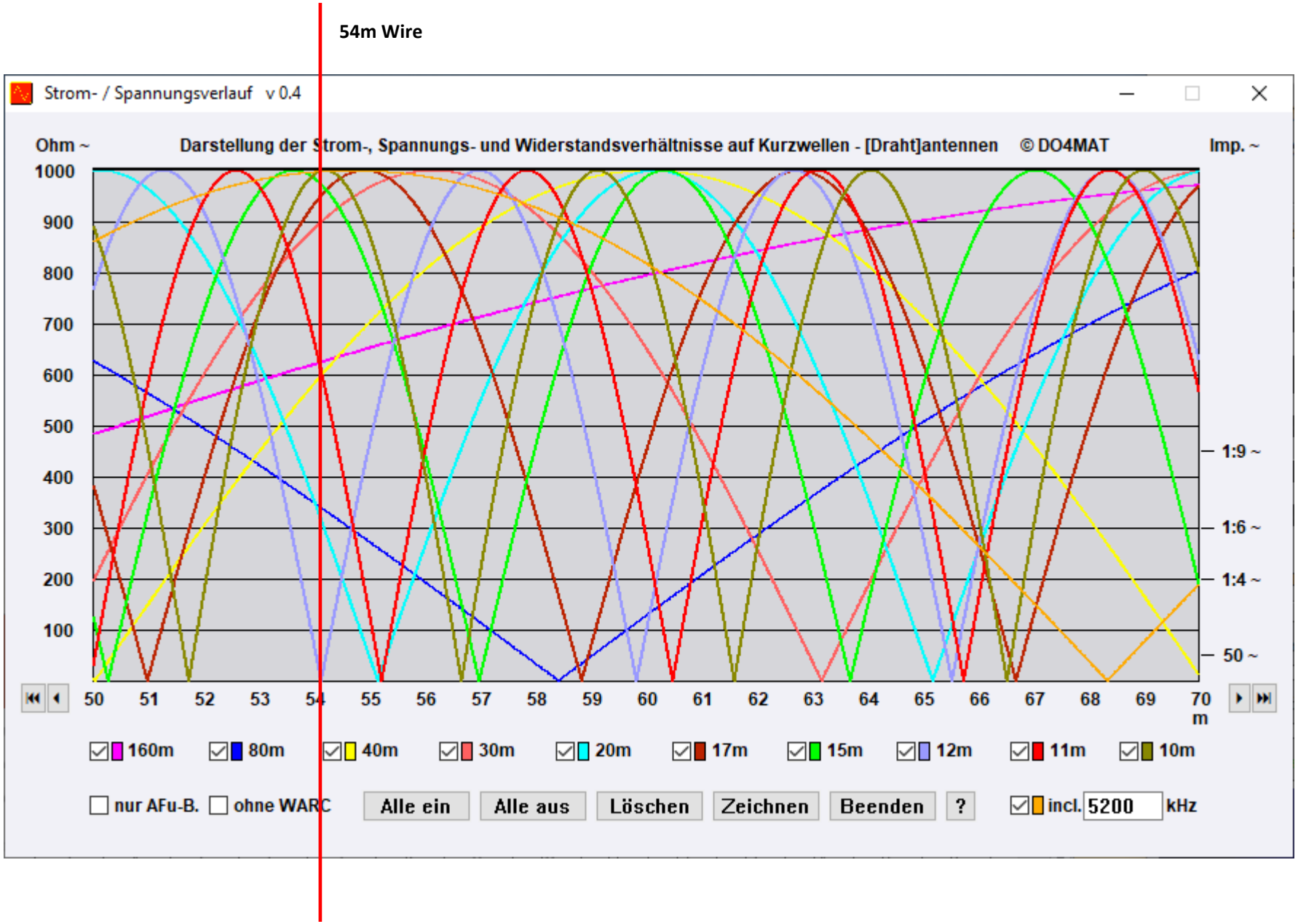
Our "i" series of feedline isolation baluns provide excellent feedline decoupling and, depending on the model selected, low loss performance across the full HF spectrum. The **model 1116di** is a dual core design that will handle 5kW at resonance with a 100% duty cycle, provides high common mode impedance and an extended effective core area for excellent performance. The core mix used to construct this balun is **optimized for the lower frequencies** producing a level of choking impedance not available from other designs. **Even with the optimization, this core mix is still effective up through 54 MHz.**

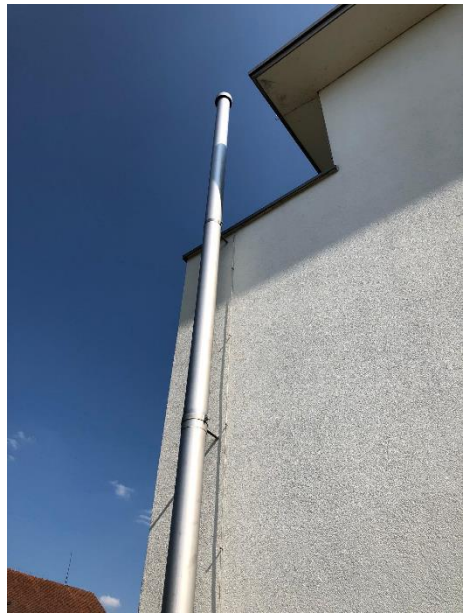
54m Wire-Antenne with Stockcorner JC-4s Tuner for 10m to 160m

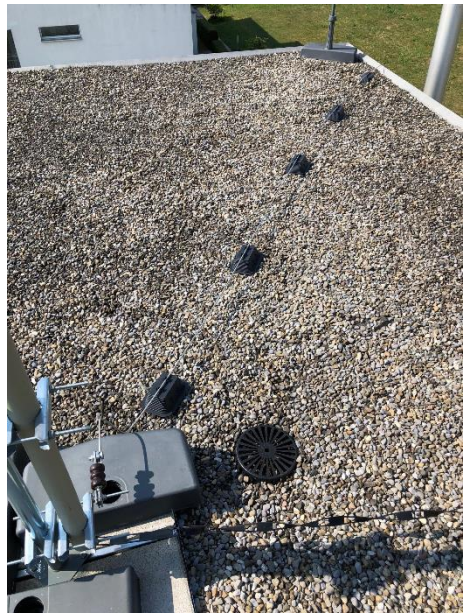
HB9RYZ – www.hb9ryz.ch
27.5.2023



Lightning protection

On July 19, 2018, the lightning protection was installed by the company Paul Gisler AG in Rotkreuz.





Installationsattest Blitzschutzsystem

Von der Errichterfirma gemäss SN SEV 4022:2008 Leitsätze Elektrosuisse Blitzschutzsysteme Ziffer 11.2 auszufüllen.

Angaben zum Gebäude

Gebäudeadresse	Holzhäusernstrasse 5a	Gemeinde	Hünenberg
Grundstück Nr.		PLZ, Ort	6331 Hünenberg
Gebäudeart	Reiheneinfamilienhaus	Assekuranz Nr.	1479 a
		Gebäudeumfang	ca. 40 m

- ☐ Pflichtanlage
- ☒ Freiwillige Anlage
- ☐ Neuanlage
- ☐ Änderung / Erweiterung
- ☐ Überprüfung / Instandsetzung
- ☐ Blitzschutzklasse I (5x5 m Maschenw. 10 m Abstand zw. Ableitungen)
- ☐ Blitzschutzklasse II (10x10 m Maschenw. 10 m Abstand zw. Ableitungen)
- ☐ Blitzschutzklasse III (15x15 m Maschenw. 15 m Abstand zw. Ableitungen)

Gebäudeeigentümer		**Errichterfirma**	
Name, Vorname	Sidler Wolfgang	Firma	Paul Gisler AG
Strasse, Nr.	Holzhäusernstrasse 5a	Strasse, Nr.	alte Steinhauserstr. 32
PLZ, Ort	6331 Hünenberg	PLZ, Ort	6330 Cham
Tel.		Tel.	041 748 50 30

Fangleitungen (Material, Dimension)
Keine Fangleitung

Natürliche Ableitungen (Anzahl, Material)

Künstliche Ableitungen (Anzahl, Material, Dimension)
verz. Kupferdraht 6 mm

Erdungssystem (Art, Material, Dimension)
Tiefenerder

Innerer Blitzschutz (Potentialausgleich, Überspannungsschutz)

Erdungsmessungen (in Ohm)	**Messgerät** (Typ, Verfahren)
10.0	Meggert DET3TC 3 Punktmessung

Der Errichter bestätigt, dass die Anlage den Leitsätzen Blitzschutzsysteme 4022 und Fundamenterder 4113 entspricht.
Angewendete Norm: 4022:2008☐ 4022:2004☐ 4022:1987☐

Ort, Datum Cham, 23.07.2018

Firmenstempel

Unterschrift

Die Kontrolle des Blitzschutzsystems hat gemäss kantonaler Weisung durch eine anerkannte Person für Blitzschutzanlagen zu erfolgen.

Ort, Datum Cham, 23.07.2018

Zertifikatsträger Martin Schärli

Firmenstempel

Unterschrift

VKF Zertifikats Nr. 06511009