

You've come a long way, Survey!



Spectrum Analyzer in Triumph-VS & Victor-VS



Watch Our Three New
Revolutionary Products

View at
WWW.JAVAD.COM

Another First ...

TRIUMPH-VS shows interferences in all GNSS bands

Your GNSS receiver sometimes does not track satellites? Sometimes RTK solutions get stuck in “Float”, or take longer to converge to “Fixed”? You may have interferences in one or more of your GNSS bands. In addition to harmonics of signals like local TV and radio stations, now there are \$10 GNSS jammers on the market that interfere with GNSS signals as well!

The GNSS spectrum analyzer feature of TRIUMPH-VS does much more than a generic \$30,000 spectrum analyzer. TRIUMPH-VS shows interferences by analyzing signals before RF and after digital sections and quantifies how much interference is in your neighborhood. See the reverse side for more detail.

Patent Pending

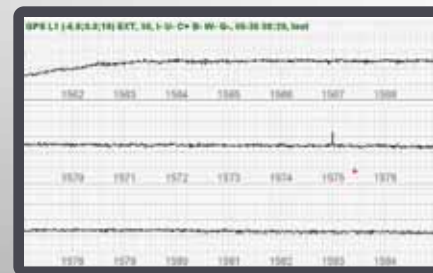


216 Channels

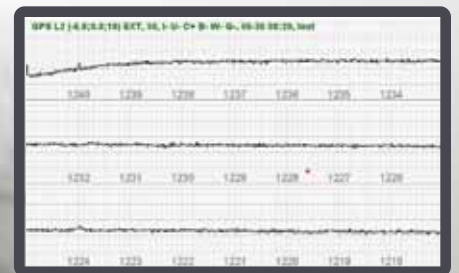
GPS
GLONASS
Galileo

TRIUMPH-VS shows interferences, 5 screens below
are examples of cleaner bands.

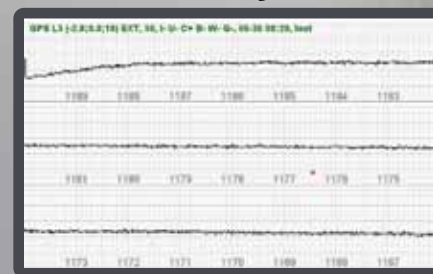
GPS L1



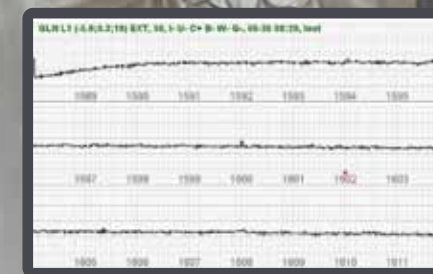
GPS L2



GPS L5



GLONASS L1

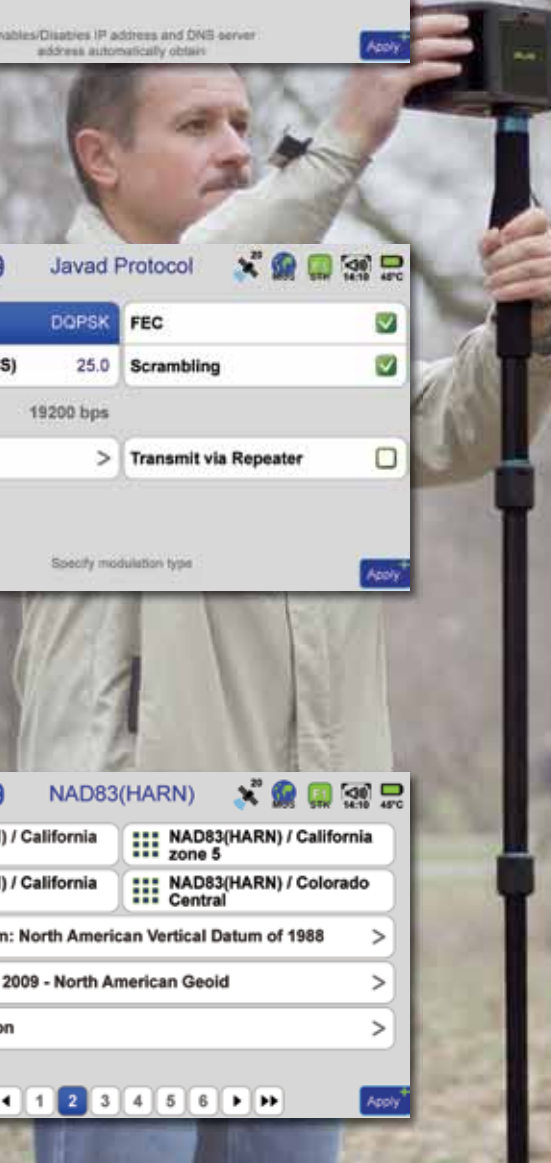
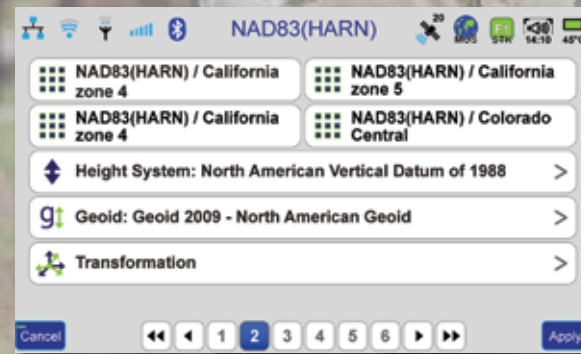
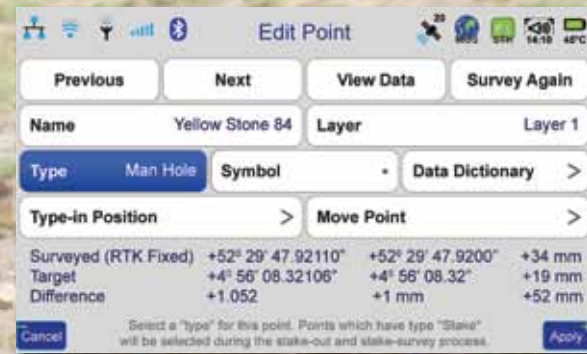
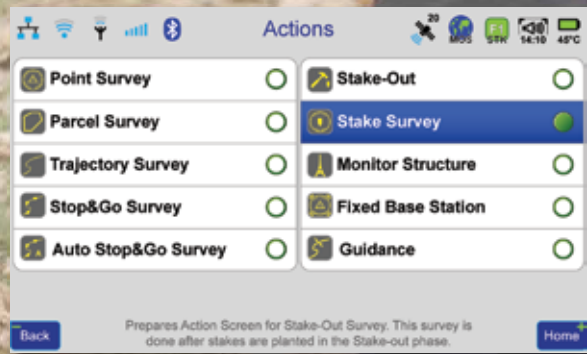
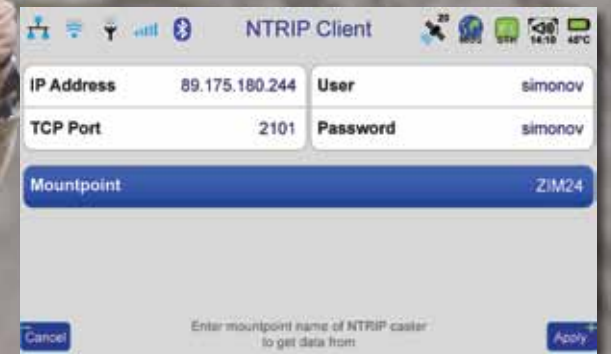
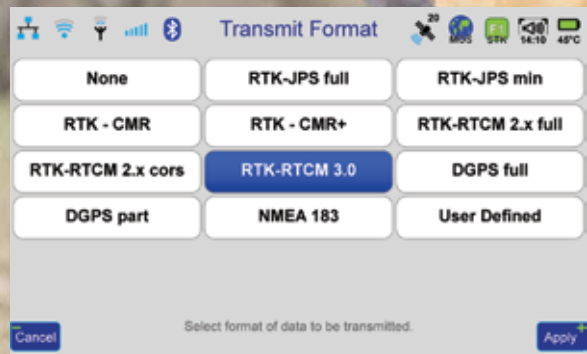
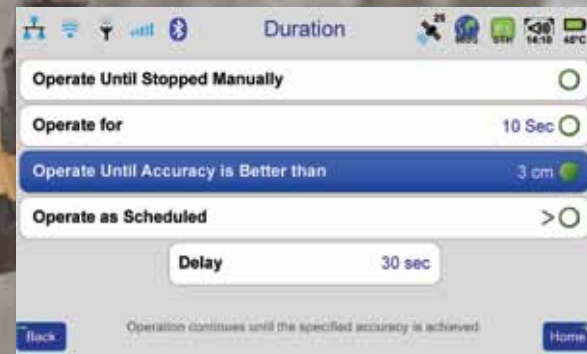


GLONASS L2



Center of the Band

Three New Revolutionary Products



Packaged in One!



Stake 35

RTK Fixed 1.5 cm

N: +2.3 cm
E: -1.8 cm
U: -2.1 cm

RTCM3.0 365
99.95
1 sec

Auto Correct Alignment

Int: 259
SD: 000

Int: 1.8/1.83 Mb
SD: 1.9/1.04 Mb
FL: 458.5/82.63 Mb

Triumph Palace Left Up Corner (3)

RTK Fixed 3 cm

Auto Correct Alignment

Int: 259
SD: 000

Int: 1.8/1.83 Mb
SD: 1.9/1.04 Mb
FL: 458.5/82.63 Mb

Yellow Stone 36

RTK Fixed 1.2 cm

Auto Correct Alignment

Int: 259
SD: 000

Int: 1.8/1.83 Mb
SD: 1.9/1.04 Mb
FL: 458.5/82.63 Mb

Triumph Palace Left Up Corner (3)

RTK Fixed 3 cm

Auto Correct Alignment

Int: 259
SD: 000

Int: 1.8/1.83 Mb
SD: 1.9/1.04 Mb
FL: 458.5/82.63 Mb

Triumph Palace

corner 4 corner 5
corner 3 corner 6
corner 2 corner 1

S: 500.2254 m²
P: 95.213 m

Map Layers

Layer 1 Show Edit Layer 6 Show Edit
Layer 2 Show Edit Layer 7 Show Edit
Layer 3 Show Edit Layer 8 Show Edit
Layer 4 Show Edit Layer 9 Show Edit
Layer 5 Show Edit Layer 10 Show Edit

Draw

Draw Objects: Point, Polygon/Polyline, Circle, Rectangle, CoGo Draw

Map Features: List Points, Layers, View Background Map, Auto Scale to Fit All, Cursor Motion

Add Relative Point

Name: Yellow Stone 84 Layer: Layer 1

Type: Man Hole Symbol: Data Dictionary

East: 4.000 m Hor. Distance: 5.000 m
North: 3.000 m Hor. Angle: 53.130°
Up: 10.000 m Vert. Up: 10.000 m

Satellites

SAT	EL	AZ	H	L1	P1	P2	L1C	L5	SAT	EL	AZ	H	L1	P1	P2	L1C	L5
GPS7	7	106	H	32	-	-	32	-	GLN11	11	96	H	40	39	26	26	-
GPS8	41	102	H	46	30	30	-	-	GLN13	54	298	H	45	44	42	43	-
GPS9	14	286	H	37	10	10	-	-	GLN14	6	284	H	34	31	36	36	-
GPS11	13	82	H	37	-	-	-	-	GLN21	34	440	H	48	47	44	45	-
GPS15	55	274	H	49	37	37	48	-	GLN22	48	114	H	48	48	47	49	-
GPS17	30	158	H	45	29	29	44	-	GLN23	14	162	H	43	41	37	40	-
GPS19	8	28	H	37	11	11	-	-	WA124	32	202	H	38	-	-	-	-
GPS26	46	298	H	37	-	-	-	-	WA126	27	196	H	34	-	-	-	-
GPS27	27	288	H	42	20	20	-	-	-	-	-	-	-	-	-	-	-
GPS28	71	86	H	49	39	39	-	-	-	-	-	-	-	-	-	-	-
GLN2	6	220	H	36	36	31	32	-	-	-	-	-	-	-	-	-	-
GLN3	31	266	H	45	45	43	44	-	-	-	-	-	-	-	-	-	-

Battery

L.Bat. R.Bat. GNSS Com. L.Bat. R.Bat. Supply L.Bat. R.Bat. dV/dt

35°C 35°C 45°C 45°C 8.3V 8.3V 9.0V 0.9A 0.8A 0.0

Hours 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Support

Update Firmware Update OAF
Check Hardware Send Files to JAVAD

Questions & Answers

Message: How can I upgrade my receiver to include Galileo?

Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
space Send Esc

Update Firmware

Update Channel: Auto, Ethernet, WiFi, GPRS

Update Now

Schedule Updates: Mon, Tue, Wed, Thu, Fri, Sat, Sun

At: 08:00 Do not wait for confirmation

CoGo & Draw

Direct, Inverse, Traverse, Offset, Translate, B-B, D-D
B-D, A-A, A-D, Divide line, Stake-out line, Stake-out curve, Hor. curve
Vert. curve, Polygon, Curve Fit, Hinge, Parallel, Resection, Diagonals



TRIUMPH-VS not only scans the GNSS bands and shows the shape and frequencies of the interferences, but it also quantifies the magnitude of the interferences in two distinct and complementary ways: a) by analyzing the analog signal and determining the “Interference Magnitude”, and b) by analyzing the S/N (Signal-to-Noise ratio) of all satellites’ signals after they are digitized and processed (after code and carrier correlations) and determining the “Satellites S/N loss” due to interferences.

“Interference Magnitude” is determined by analyzing the amount of gain that we can apply to the GNSS signal before digitizing it. The more interference there is, the less we can amplify the signal to avoid saturation. We can determine the “Interference Magnitude” by comparing the actual amplification magnitude with our nominal amplification magnitude (when no interference exists).

“Satellites S/N loss” is determined by comparing the actual measured S/N of each satellite (for each of its signals) with its nominal S/N at that elevation angle and then averaging all such deviations for all satellite signals.

TRIUMPH-VS not only analyzes and shows interferences, it also has In-Band Interference Rejection option that removes in-band interferences.

And Now... Introducing

VICTOR-VS

New Controller



See www.javad.com for details