

ZN30603 — Vehicle Transmitter-Simulation Antenna Set

PRODUCT DATASHEET | 1.8 MHz–6 GHz | ZHINAN

25 dedicated antennas	1.8 MHz–6 GHz	ISO 11451-3 vehicle testing
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1. Product Overview

The ZN30603 is a 25-antenna set for vehicle transmitter-simulation testing in accordance with ISO 11451-3. Dedicated whip and biconical antennas cover representative short-wave, VHF, UHF, TETRA, GSM, LTE, WLAN and 5G NR transmitter bands.

2. Technical Specifications

Parameter	Specification
Frequency coverage	1.8 MHz–6 GHz
Representative services	Short-wave / VHF / UHF / TETRA / GSM / LTE / WLAN / 5G NR
Configuration	Multiple dedicated whip antennas plus one biconical antenna
Typical test chain	Signal source, power amplifier, power meter and directional coupler
Application	Vehicle transmitter-simulation testing
Quantity	25 antennas

3. Typical Applications

- ISO 11451-3 vehicle transmitter-simulation immunity testing
- Representative on-board and external radio-service simulation
- Automotive EMC laboratory and proving-ground test systems

4. Complete Antenna Configuration — 1 of 2

No.	Band / service	Model	Type	Dimensions	Frequency (MHz)	Power (W)	VSWR
1	Short-wave	ZN30602	Whip	2 m @ 28 MHz; 2.6 m @ 1.8 MHz	1.8–30	100 RMS	<2
2	4–8 m band	ZN30603-2	Whip	Φ120 × 633 mm	30–87.5	120 RMS	<2
3	2 m band	ZN30603-5	Whip	Φ120 × 1375 mm	144–174	120 RMS	<2
4	Land mobile / talk	ZN30603A-3-2	Whip	Φ92 × 332 mm	216–223	10 peak	<2
5	1.25 m band	ZN30603A-4	Whip	Φ92 × 332 mm	220–225	10 RMS	<2
6	70 cm band	ZN30603-6	Whip	Φ92 × 630 mm	420–450	120 RMS	<2
7	TETRA / TETRAPOL	ZN30603-7	Whip	Φ92 × 428 mm	380–876	20 peak	<2
8	CDMA800	ZN30603A-7	Whip	Φ92 × 580 mm	815–849	0.25 peak	<2
9	GSM850	ZN30603-8	Whip	Φ92 × 580 mm	824–849	20 peak	<2
10	GSM900	ZN30603-9	Whip	Φ92 × 580 mm	876–915	20 or 8 peak	<2
11	PDC band	ZN30603A-15-1	Whip	Φ92 × 580 mm	893–898	0.8	<2
12	PDC band	ZN30603A-15-2	Whip	Φ92 × 580 mm	925–958	0.8	<2
13	PDC band	ZN30603A-15-3	Whip	Φ92 × 600 mm	1429–1453	0.8	<2

4. Complete Antenna Configuration — 2 of 2

No.	Band / service	Model	Type	Dimensions	Frequency (MHz)	Power (W)	VSWR
14	23 cm band	ZN30603-10	Whip	Φ92 × 458 mm	1200–1300	25 RMS	<2
15	PCS / GSM1800/1900	ZN30603-11-1	Whip	Φ92 × 355 mm	1710–1785	2 peak or 1	<2
16	PCS / GSM1800/1900	ZN30603-11-2	Whip	Φ92 × 355 mm	1850–1910	2 peak or 1	<2
17	CDMA1900 / PCS	ZN30603-12	Whip	Φ92 × 355 mm	1850–1910	0.25 peak	<2
18	UMTS	ZN30603-13-1	Whip	Φ92 × 580 mm	824–849	1 peak	<2
19	WCDMA	ZN30603-13-2	Whip	Φ92 × 580 mm	880–915	1 peak	<2
20	TD-CDMA	ZN30603-13-3	Whip	Φ92 × 355 mm	1850–2025	1 peak	<2
21	Bluetooth / WLAN / Wi-Fi	ZN30603-14	Whip	Φ74 × 185 mm	2400–2500	0.5 peak	<2
22	LTE / OFDMA / SC-FDMA	ZN30508	Biconical	560 mm	450–3800	4 peak	—
23	IEEE 802.11a/h/j/n/ac	ZN30603-16	Whip	Φ92 × 653 mm	5150–5350 / 5725–5850	1 peak	<2
24	5G NR1	ZN30603-17	Whip	Φ74 × 230 mm	3300–4200 / 4400–5000	0.25 peak	<2
25	In-vehicle antenna	ZN30603-18	Whip	Φ74 × 368 mm	1–174	10 peak	<2

5. Standard Package

Item	Quantity / description
Antennas	25
User manual	1
Certificate of conformity	1

6. Product Image



The antenna selection and applied power must follow the target radio service, vehicle configuration and the applicable edition of ISO 11451-3.