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cobas® 5800 System
System specifications

Roche

Performance specifications	cobas® 5800 System
Time to first results (up to 24 tests)* Subsequent batches (24 tests)	2 hours 45 minutes Every 60 minutes thereafter
Maximum throughput (8 hrs | 24 hrs)*	144 | 528 tests
Walkaway time	up to 4 hours
Maximum number of tests per run	24 tests including controls; with up to 6 different assays per run
User interactions	1. Load/unload samples, load reagents and consumables as needed 2. Remove waste (solid and liquid) 3. Review and auto-release results
cobas omni Utility Channel	• Consolidate open channel assays** with Roche IVD assays on a single platform • Develop and automate your own LDTs with up to 24 targets per plate • Mixed processing of open channel assays and Roche IVD assays

*May vary based on workflow demands.
**Open channel assays may include third-party IVD assays, as well as routine lab-developed tests (LDTs).

Onboard inventory	cobas® 5800 System
Samples (Standard tubes | RD-5/MPA Racks | Collection medium containers)	128 | 80 | 28
Assay reagent cassettes	Up to 15 (up to 7,200 tests)
Control mini racks	Up to 16
cobas omni MGP reagent	1 (480 tests)
cobas omni specimen diluent reagent (1 L bottle)*	1 (240 tests)
cobas omni lysis reagent (1 L bottle)	2 (432 tests)
cobas omni wash reagent (4 L Bottle)†	1 (240 tests)
cobas omni processing plates 24	4 (96 tests)
cobas omni liquid waste plates 24	4 (96 tests)
cobas omni amplification plates 24	8 (192 tests)
Processing tips‡	3 x 96 (144 tests)
Eluate tips	2 x 96 (192 tests)

*** Calculated for the addition of 350ul
† For 3-4 assays per run
‡ 2 processing tips are needed per sample

More info on diagnostics.roche.com

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Compatible tubes

Tube dimensions acceptable for use on the **cobas®** 5800 System

Tube size	Acceptable measurement (mm)
Height (without cap)	65 - 103
Outside diameter (includes barcode label)	12 - 16.2

1D Barcodes

- Code 128
- Code 39
- Codabar
- Interleaved 2 of 5
- EAN-8
- EAN-13
- Code 93

2D Barcodes

- Data matrix ECC 200
- Aztec code

Power supply

Line voltage	100-240 VAC +/- 10%
Line frequency	50/60Hz +/- 10%
Maximum power consumption	1600 VA

Environmental requirements (Operating)

Ambient room temperature	15°C to 32°C
Relative humidity	20% to 80% (no condensation)
Altitude	up to 2000 m
Pollution degree	2

Dimensions & weight

Power supply

Instrument dimensions	134 x 175 x 79 cm (W x H x D)
Instrument weight	623 kg

X800 Data Manager

- Functions as a central server when interconnecting and operating multiple Systems
- System connectivity: up to 3 analytic systems managed by a single x800 Data Manager
- LIS Connectivity: uni- and bi-directional communication using HL7 standard protocol

Contamination prevention

- Controlled air flow in the deck area
- Pipette tips with filter technology
- Dedicated pipette tips for each sample transfer and for transfer of extracted nucleic acid
- Stainless steel 2-fold needle transfers assay-specific reagents and other bulk reagents required for sample preparation and amplification; washed after each use
- Controls (RMCs) are transferred using pipette tips
- Automatic heat sealing of **cobas omni** Amplification Plate

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