B&R 8BAC0133.000-1

01 Encoder-emulation role and host slot

Identify the emulation role

Confirm that the receiving equipment needs A/B/reference outputs rather than an encoder-input interface. Retain the intended pulse interpretation and direction convention.

Check the slot-2 host arrangement

Verify the ACOPOSmulti host and the specified slot position before fitting the option. Follow the host isolation and stored-energy procedure for hardware work.

Host slot	ACOPOSmulti slot 2
Signal outputs	3 differential RS422 channels: A, B, reference
Power consumption	2 W maximum

02 Differential signals and reference conductor

Map the differential pairs

Trace A with inverted A, B with inverted B, and reference with inverted reference. Keep each pair together through the cable and receiving connector.

Connect the signal reference

Include the pin-6 common reference in the same cable as the signal conductors. Use the intended receiver-side ground reference for the isolated output circuit.

Connector	Coded 9-pin female D-sub
Output-to-host isolation	Yes
Output-to-output isolation	No

03 Cable impedance and receiver termination

Apply receiver termination

Fit the specified 120-ohm termination at the receiving station. Use 120-ohm characteristic-impedance cable rather than choosing cable solely by conductor count.

Restore both shield connections

Apply the cable shield at both ends and inspect the connector shield continuity. Keep the installation within the 75 m maximum cable length.

Maximum cable length	75 m
Receiver termination	120 Ω
Cable impedance	120 Ω, shielded

04 Initialization and quadrature verification

Observe software initialization

Check that the option reaches its initialized state before expecting active outputs. Interpret the high-impedance startup state separately from a running pulse signal.

Verify A/B phase behavior

Use suitable differential instrumentation or receiver diagnostics to check pulse frequency and direction interpretation. Keep the test within the 1 MHz maximum frequency.

Maximum frequency	1 MHz
Switching delay	≤50 ns, both transitions
Startup output state	High impedance until software initialization

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05 Reference-pulse response and retained settings

Check the reference pulse

Verify the reference pair at pins 8 and 7 and its interpretation by the receiving device. A working A/B count does not by itself prove reference-pulse alignment.

Retain the pulse-interface baseline

Save pair wiring, termination, reference connection, configured emulation behavior and test results. Confirm the receiving equipment responds correctly before enabling dependent motion.

Technical basis: B&R ACOPOSmulti User's Manual, V1.30.

Related product navigation

B&R X20AT2222

B&R X20AO2622

These are related references, not confirmed substitutes or an automatically approved assembly.