



STEVAL-IFN002V1

ARMIC30, CAN industrial controller using STR730 microcontroller

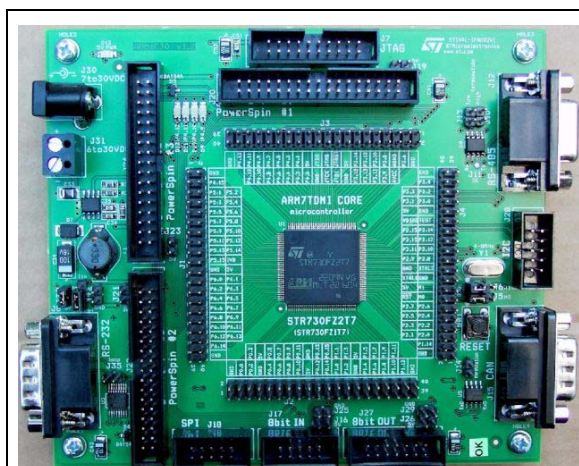
Data Brief

Features

- 32bit ARM7TDMI core based microcontroller used STR730 @ 36MHz
- RS-232 interface with 15kV guaranteed ESD protection
- RS-485 interface using high-speed transceiver
- CAN communication up to 1Mbps
- I2C, SPI, JTAG communication connectors
- Industrial voltage level (24VDC) power supply
- Additional general purpose connectors suitable also for a motor control and a PLC applications

Description

This evaluation board is designed with a 32-bit STR730F microcontroller based on a powerful ARM7TDMI core. The STR730F provides an extensive number of peripheral functions and enhanced I/O capabilities as it is equipped with RS-232, RS-485, CAN, SPI, I²C and JTAG communication interfaces. This board is suitable for industrial applications and can be used, in particular, as a reference design for the development of the programmable logic controller (PLC) section in factory automation. This solution is implemented on a double-faced board with two copper layers only for increased cost-effectiveness.



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1 Block diagram

Microcontroller

STR730F

U1

J1

J3

C1, **C2**, **C3**, **C4**, **C5**, **C6**, **C7**, **C8**, **C9**, **C10**, **C11**, **C12**, **C13**, **C14**, **C15**, **C16**, **C17**, **C18**, **C19**, **C20**, **C21**, **C22**, **C23**, **C24**, **C25**, **C26**, **C27**, **C28**, **C29**, **C30**, **C31**, **C32**, **C33**, **C34**, **C35**, **C36**, **C37**, **C38**, **C39**, **C40**, **C41**, **C42**, **C43**, **C44**, **C45**, **C46**, **C47**, **C48**, **C49**, **C50**, **C51**, **C52**, **C53**, **C54**, **C55**, **C56**, **C57**, **C58**, **C59**, **C60**, **C61**, **C62**, **C63**, **C64**, **C65**, **C66**, **C67**, **C68**, **C69**, **C70**, **C71**, **C72**, **C73**, **C74**, **C75**, **C76**, **C77**, **C78**, **C79**, **C80**, **C81**, **C82**, **C83**, **C84**, **C85**, **C86**, **C87**, **C88**, **C89**, **C90**, **C91**, **C92**, **C93**, **C94**, **C95**, **C96**, **C97**, **C98**, **C99**, **C100**, **C101**, **C102**, **C103**, **C104**, **C105**, **C106**, **C107**, **C108**, **C109**, **C110**, **C111**, **C112**, **C113**, **C114**, **C115**, **C116**, **C117**, **C118**, **C119**, **C120**, **C121**, **C122**, **C123**, **C124**, **C125**, **C126**, **C127**, **C128**, **C129**, **C130**, **C131**, **C132**, **C133**, **C134**, **C135**, **C136**, **C137**, **C138**, **C139**, **C140**, **C141**, **C142**, **C143**, **C144**, **C145**, **C146**, **C147**, **C148**, **C149**, **C150**, **C151**, **C152**, **C153**, **C154**, **C155**, **C156**, **C157**, **C158**, **C159**, **C160**, **C161**, **C162**, **C163**, **C164**, **C165**, **C166**, **C167**, **C168**, **C169**, **C170**, **C171**, **C172**, **C173**, **C174**, **C175**, **C176**, **C177**, **C178**, **C179**, **C180**, **C181**, **C182**, **C183**, **C184**, **C185**, **C186**, **C187**, **C188**, **C189**, **C190**, **C191**, **C192**, **C193**, **C194**, **C195**, **C196**, **C197**, **C198**, **C199**, **C200**, **C201**, **C202**, **C203**, **C204**, **C205**, **C206**, **C207**, **C208**, **C209**, **C210**, **C211**, **C212**, **C213**, **C214**, **C215**, **C216**, **C217**, **C218**, **C219**, **C220**, **C221**, **C222**, **C223**, **C224**, **C225**, **C226**, **C227**, **C228**, **C229**, **C230**, **C231**, **C232**, **C233**, **C234**, **C235**, **C236**, **C237**, **C238**, **C239**, **C240**, **C241**, **C242**, **C243**, **C244**, **C245**, **C246**, **C247**, **C248**, **C249**, **C250**, **C251**, **C252**, **C253**, **C254**, **C255**, **C256**, **C257**, **C258**, **C259**, **C260**, **C261**, **C262**, **C263**, **C264**, **C265**, **C266**, **C267**, **C268**, **C269**, **C270**, **C271**, **C272**, **C273**, **C274**, **C275**, **C276**, **C277**, **C278**, **C279**, **C280**, **C281**, **C282**, **C283**, **C284**, **C285**, **C286**, **C287**, **C288**, **C289**, **C290**, **C291**, **C292**, **C293**, **C294**, **C295**, **C296**, **C297**, **C298**, **C299**, **C300**, **C301**, **C302**, **C303**, **C304**, **C305**, **C306**, **C307**, **C308**, **C309**, **C310**, **C311**, **C312**, **C313**, **C314**, **C315**, **C316**, **C317**, **C318**, **C319**, **C320**, **C321**, **C322**, **C323**, **C324**, **C325**, **C326**, **C327**, **C328**, **C329**, **C330**, **C331**, **C332**, **C333**, **C334**, **C335**, **C336**, **C337**, **C338**, **C339**, **C340**, **C341**, **C342**, **C343**, **C344**, **C345**, **C346**, **C347**, **C348**, **C349**, **C350**, **C351**, **C352**, **C353**, **C354**, **C355**, **C356**, **C357**, **C358**, **C359**, **C360**, **C361**, **C362**, **C363**, **C364**, **C365**, **C366**, **C367**, **C368**, **C369**, **C370**, **C371**, **C372**, **C373**, **C374**, **C375**, **C376**, **C377**, **C378**, **C379**, **C380**, **C381**, **C382**, **C383**, **C384**, **C385**, **C386**, **C387**, **C388**, **C389**, **C390**, **C391**, **C392**, **C393**, **C394**, **C395**, **C396**, **C397**, **C398**, **C399**, **C400**, **C401**, **C402**, **C403**, **C404**, **C405**, **C406**, **C407**, **C408**, **C409**, **C410**, **C411**, **C412**, **C413**, **C414**, **C415**, **C416**, **C417**, **C418**, **C419**, **C420**, **C421**, **C422**, **C423**, **C424**, **C425**, **C426**, **C427**, **C428**, **C429**, **C430**, **C431**, **C432**, **C433**, **C434**, **C435**, **C436**, **C437**, **C438**, **C439**, **C440**, **C441**, **C442**, **C443**, **C444**, **C445**, **C446**, **C447**, **C448**, **C449**, **C450**, **C451**, **C452**, **C453**, **C454**, **C455**, **C456**, **C457**, **C458**, **C459**, **C460**, **C461</**

Figure 2. Schematic 2

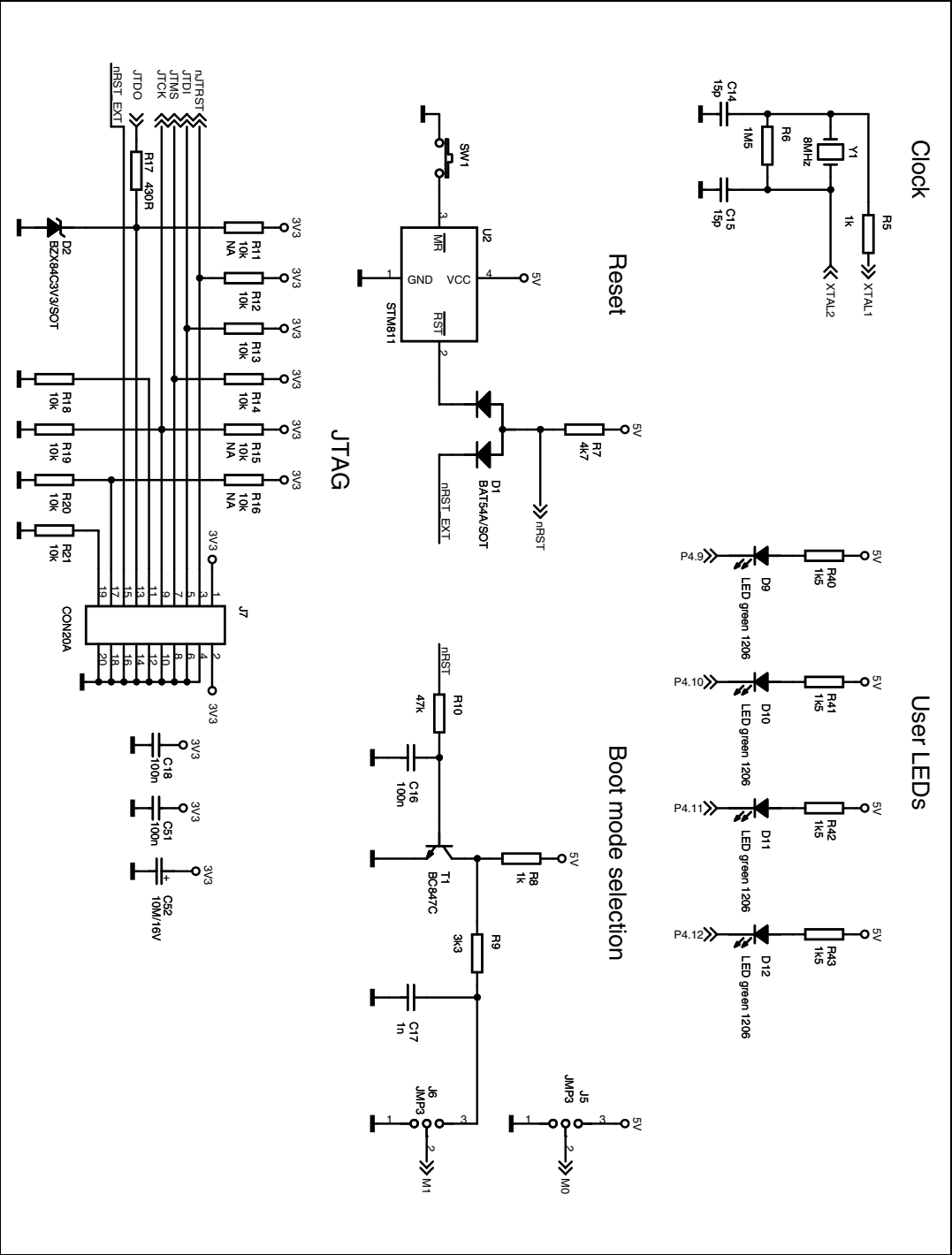


Figure 3. Schematic 3

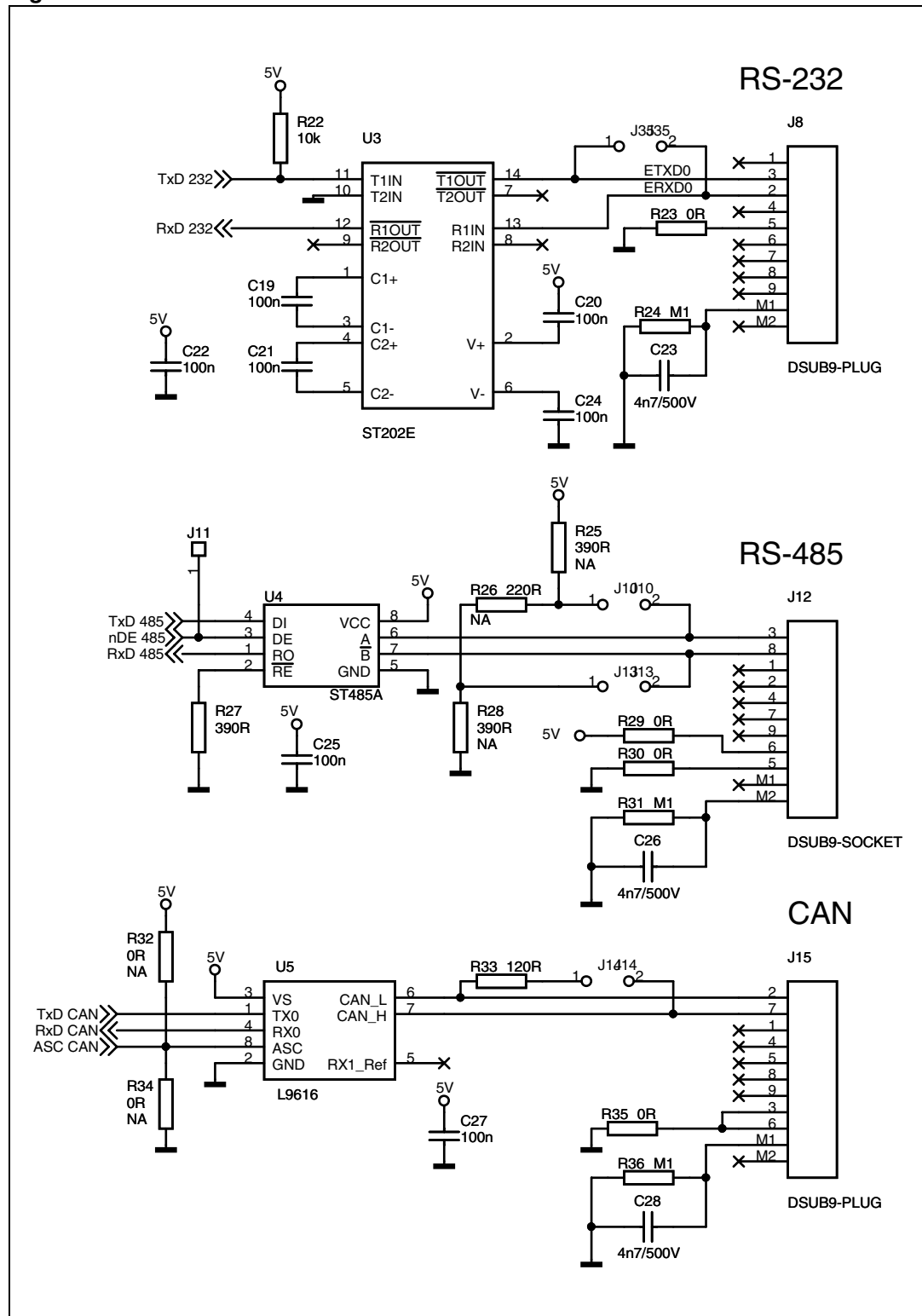
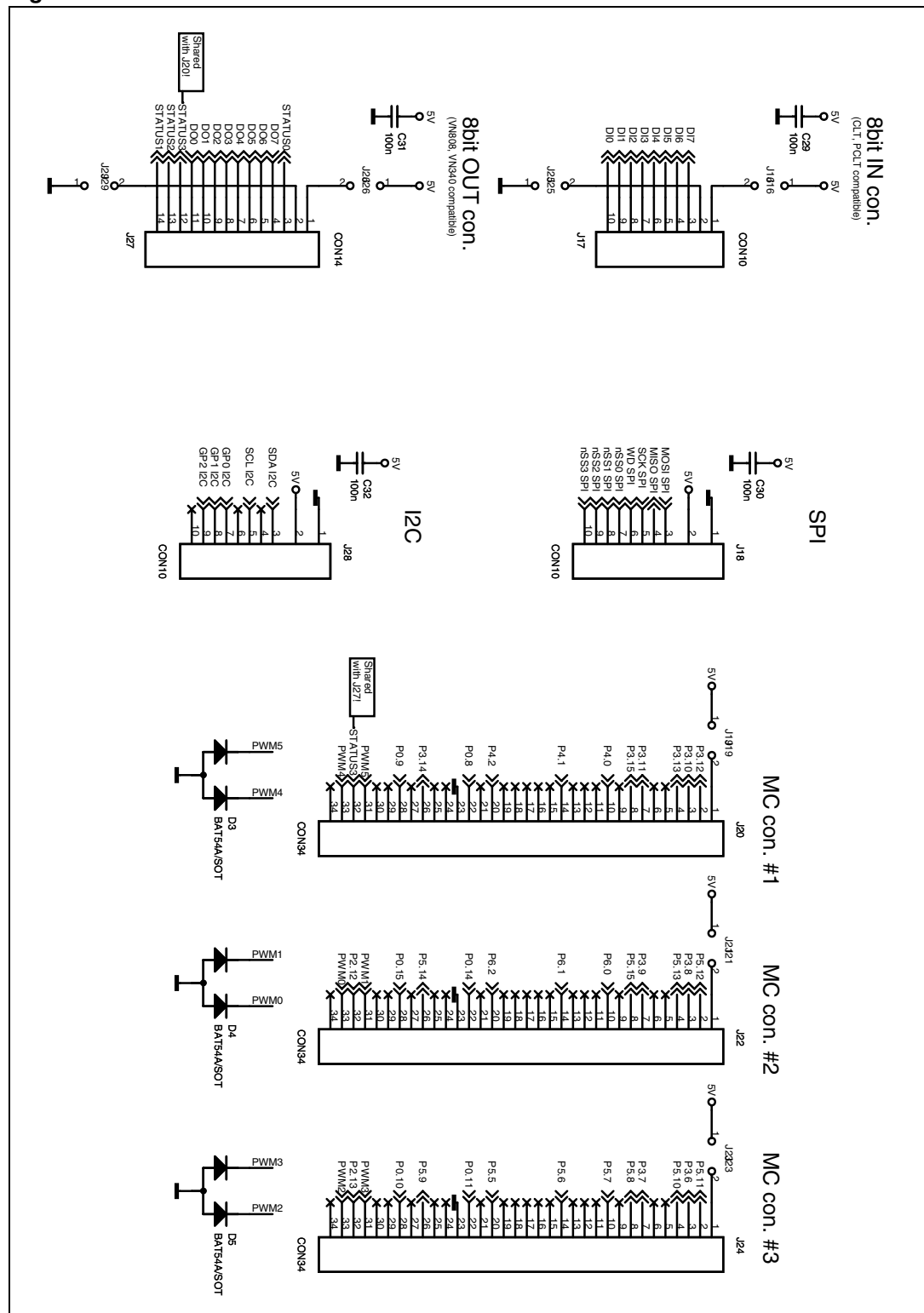


Figure 4. Schematic 4



[illegible]

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
22-Oct-2007	1	Initial release

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