VT836

3U ATCA Hybrid Chassis with 8 AMCs (Mid-size)

VT836

Key Features

- Rugged 19” rack mount 3U ATCA Hybrid AMC Chassis
- 1x ATCA slot, 8 mid-size AMC slots and 1x ATCA RTM slots
- x8 PCIe Gen3, x4 SRIO Gen3, or Layer 2 / 3 managed 10GbE/40GbE dual XAUI
- Integrated dual shelf managers, switch and AMC carrier
- Internal Orifice Plate Provision to Optimize Airflow
- High Strength 190-32 UNF-2A Captive Fastener Front Mounting Provision
- Rear Mechanical Support Provision via dagger pin receptacles
- Full redundancy for all FRUs
- Redundant AC or DC Power Modules

Benefits

- Combines the processing power of AdvancedTCA with the versatility of MicroTCA in one chassis
- Qualified to MIL-STD-810 for Humidity, Temperature, Altitude, Crash Acceleration, Shock and Vibration
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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The VT836 offers unprecedented performance density with 1 ATCA node slot and 8 mid-size, single width AMCs in 3U height. Typically, only 4 mid-sized AMCs can fit on an ATCA carrier, with VadaTech's unique design, 8 AMCs can fit in a single chassis to provide AMC's versatility of processors, FPGAs, storage, graphics, I/O options and much more. Double-width AMCs can also be implemented.

The unit is designed with a unique airflow baffle provision integrated into the module guides to enable the system integrator to balance impedance between slots.

Additional I/O is available through a standard ATCA RTM.

The VT836 has full redundancy support for all FRUs, including dual Shelf Managers.

Figure 1: VT836 Front

Power Supply

The VT836 is capable of providing single input power or redundant input power.

Figure 2: VT836 Rear

Cooling and Temperature Sensors

The chassis is designed for front-to-back forced air cooling. EMI honeycomb vents utilized for air inlet and exhaust openings.

Scorpionware™ Software

VadaTech's Scorpionware™ software can be used to access information about the current state of the Shelf or the Carrier, obtain information such as the FRU population, or monitor alarms, power management, current sensor values, and the overall health of the Shelf. The software GUI is very powerful, providing a Virtual Carrier and FRU construct for a simple, effective interface.

Chassis Configuration

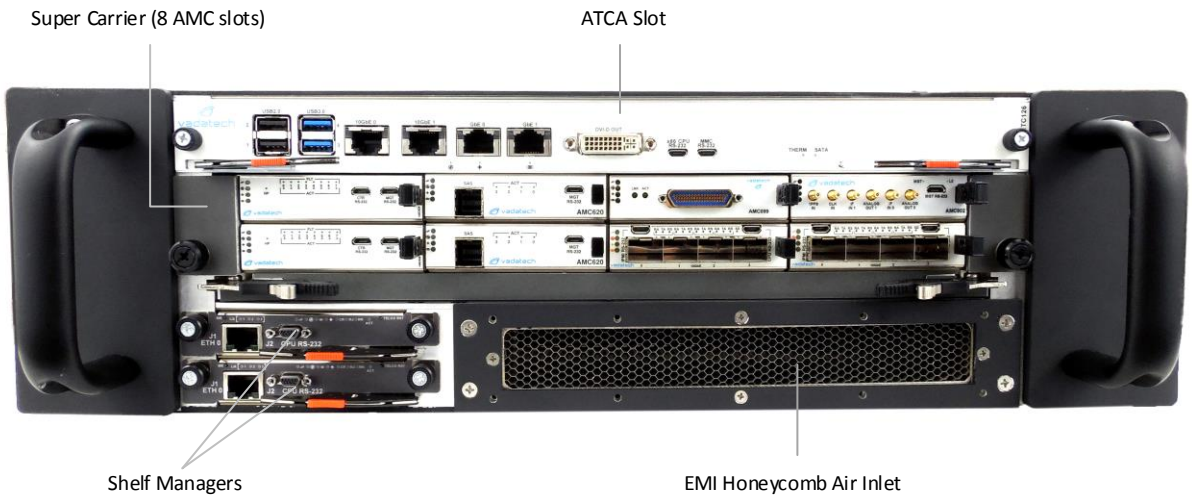

Figure 3: VT836 Chassis Layout- Front

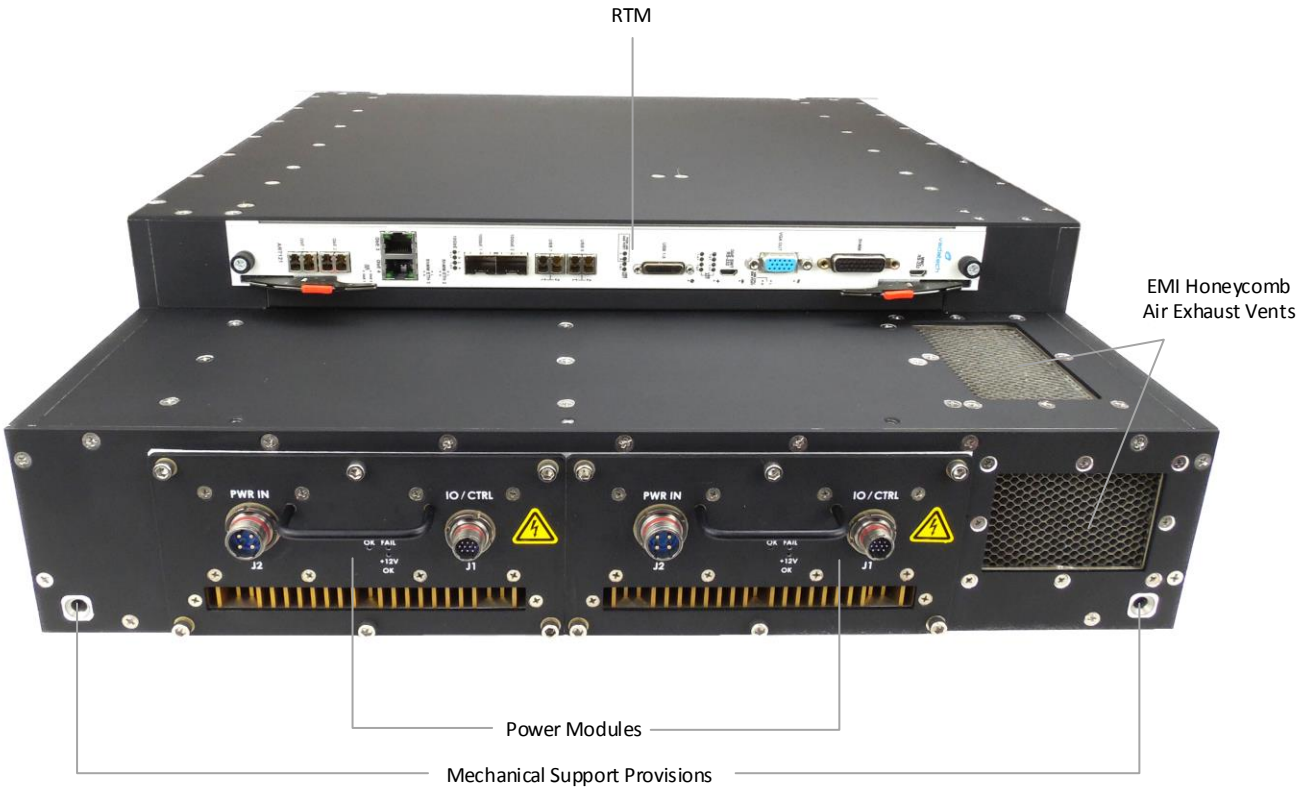

Figure 4: VT836 Chassis Layout - Rear

Block Diagram

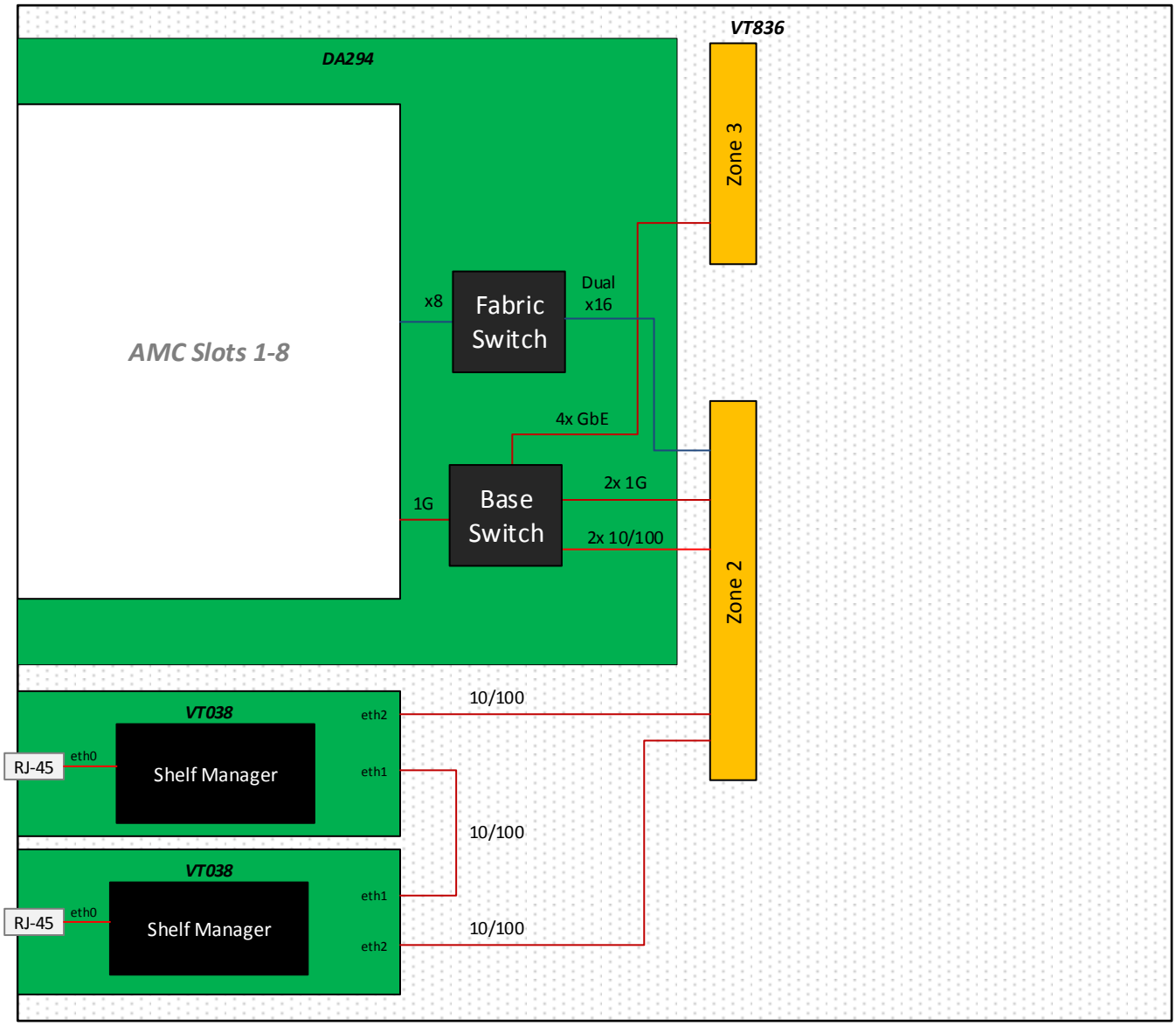

Figure 5: VT836 with GbE Switch

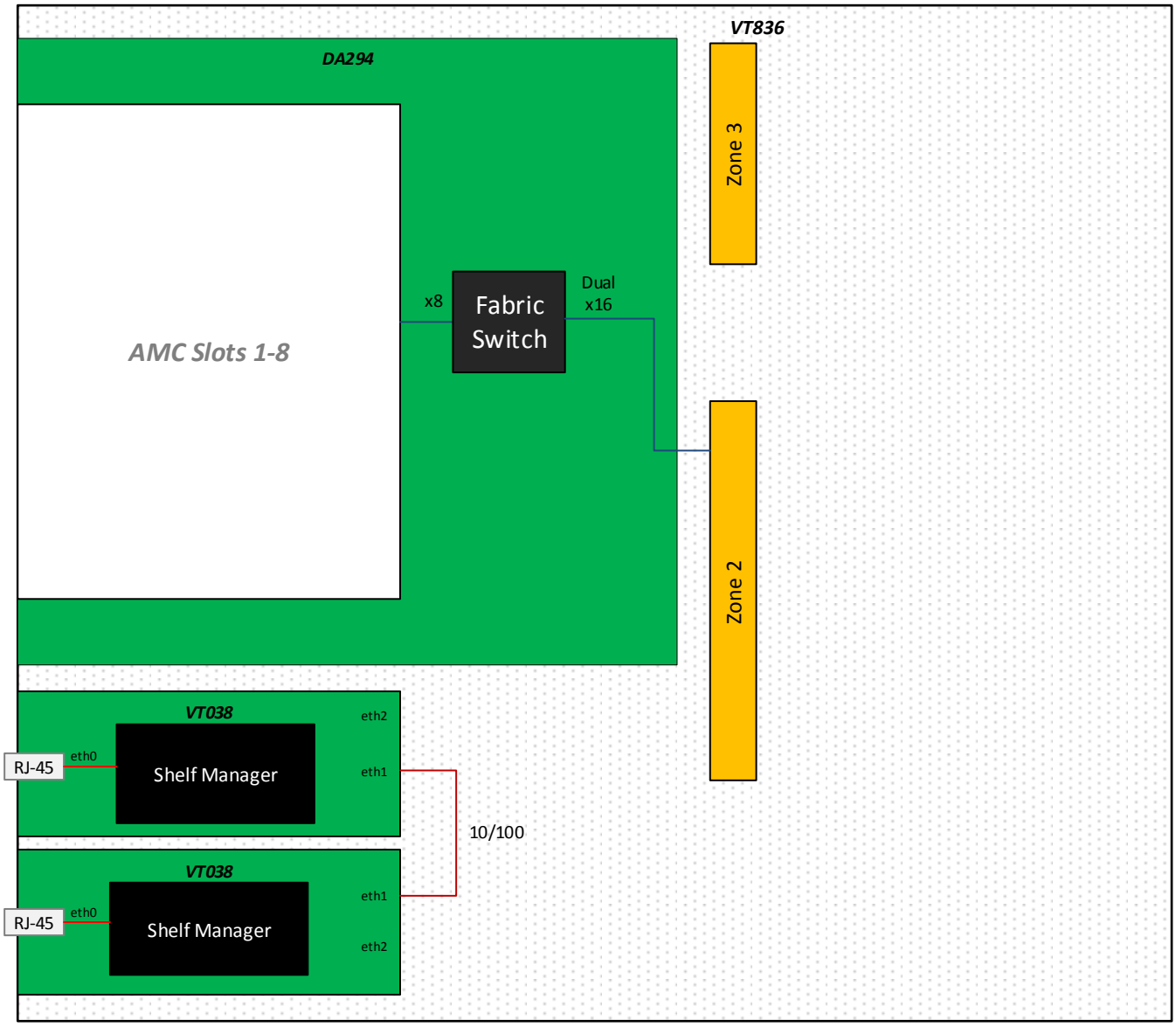

Figure 6: VT836 without GbE Switch

Carrier Options

The following illustrations show various carrier options with its associated fabrics (Ordering option C).

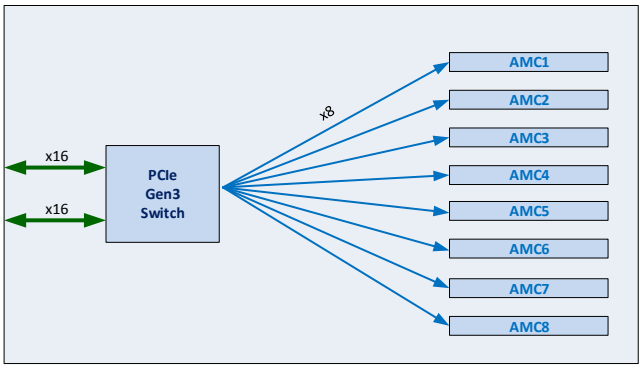

Figure 7: Option C = 1

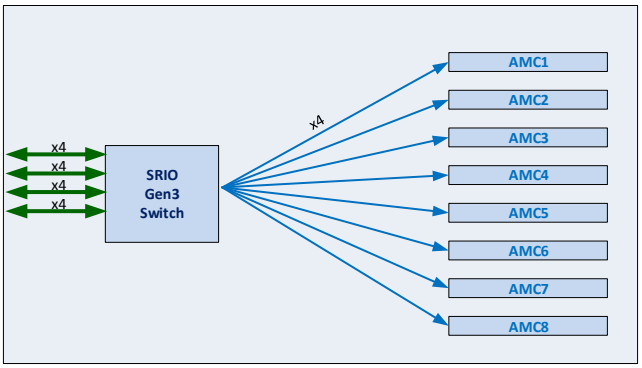

Figure 8: Option C = 2

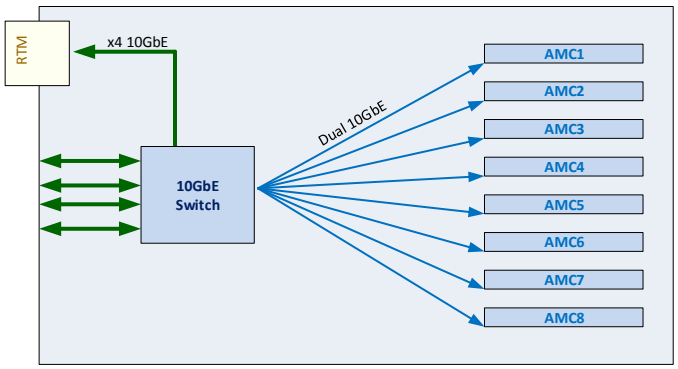

Figure 9: Option C = 3

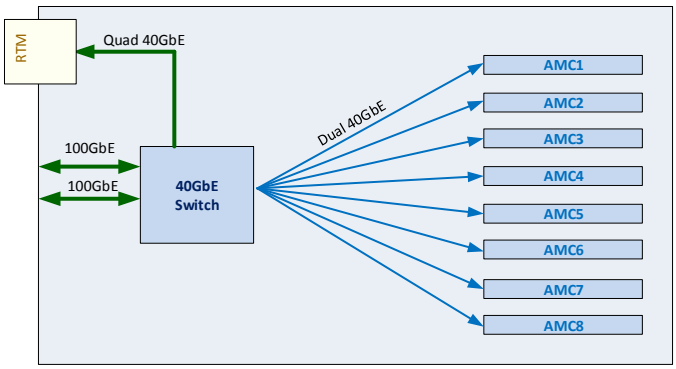

Figure 10: Option C = 4

Specifications

Architecture		
Physical	**Dimensions**	Width: 19”
		Depth: ~20”
		Height: 3U
Type	**ATCA Hybrid Chassis**	1 Slot for ATCA node, 8 mid-size AMC slots (special carrier)
Standards		
ATCA	**Type**	PICMG 3.0 Rev 3.0
AMC	**Type**	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
Configuration		
Power	**VT836**	–36 to –75V DC, 270 AC 400 Hz input
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +70°C
	Altitude	Functional: 15.31 (psia) to 9.72 psia. per MIL-STD-810G, Method 520.1 Procedure III
		Non-Operational: Up to 2.6 psia per MIL-STD-810G, Method 520.2 Procedure III
	Relative Humidity	Aggravated Humidity per MIL-STD-810G, Method 507.5 Procedure II
	Vibration	MIL-STD-810G, Method 514.6 Procedure I, 6 Hours per Axis
	Functional Shock	MIL-STD-810G, Method 516.6 Procedure I 15G’s, 11ms Half Sine Pulse
	Acceleration	16G Crash Load Factor
	EMI	CE102, CS101, CS114, CS115, CS116, RE102, RS103 per MIL-STD-461
Other		
MTBF	MIL Hand book 217-F@ TBD hrs	
Certifications	Designed to meet FCC, CE and UL certifications, where applicable	
Standards	VadaTech is certified to both the ISO9001:2015 and AS9100D standards	
Warranty	One (1) year, see VadaTech Terms and Conditions	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

Ordering Options

VT836 – ABC-000-0HJ

A = Power Module		
0 = Single AC 1 = Dual AC 2 = Single DC (200V to 420V) 3 = Dual DC (200V to 420V)		
B = Shelf Managers		**H= Temperature Range**
0 = Single 1 = Dual (redundant)		0 = Commercial 1 = Industrial
C = Carrier Fabric*		**J = Conformal Coating**
0 = Reserved 1 = PCIe Gen3 x8 to each AMC 2 = SRIO Gen3 x4 to each AMC 3 = 10GbE Layer 2 (Dual XAUI) 4 = 40GbE Layer 3		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Notes: * See Carrier Options for choice with associated fabrics.

Related Products

AMC735

- Cavium OCTEON CN67xx Multi-Core
- Core processors ROM 8 to 16 and Speeds from 800 MHz to 1.5 GHz
- Dual SFP+ socket supporting 10GbE

ATC126

- Dual 14-core Intel® Xeon® E5-2658, 2680 or 2648L v4 processors
- Eight banks of DDR4 for up to 256 GB memory
- 10/40GbE Fabric channels

AMC534

- Altera Stratix V GT FPGA in FFG-1517 package
- Dual zQSFP+ Ports to the front panel
- Front panel Port 0 at 100G, Port 1 at up to 40G

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DOC NO. 4FM737-12 REV 01 | VERSION 1.1 – NOV/19